

IMPACT OF ENROLLING IN 15 OR MORE CREDITS  
ON SELECTED PERFORMANCE OUTCOMES  
FIRST-TIME FRESHMEN AT THE  
UH FOUR-YEAR CAMPUSES  
FALL 2009 TO FALL 2012

Institutional Research and Analysis Office  
University of Hawai'i System  
September 2013

IMPACT OF ENROLLING IN 15 OR MORE CREDITS ON SELECTED PERFORMANCE OUTCOMES  
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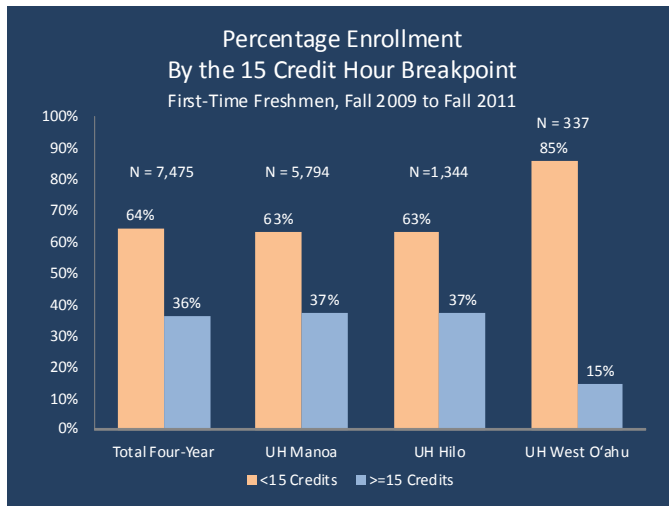
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Research Objective

The purpose of this study is to determine the impact of enrolling in 15 or more credits on student performance. Data on first-time freshmen for the University of Hawai‘i four-year campuses (UH Mānoa, UH Hilo and UH West O‘ahu) are examined for the Fall 2009, Fall 2010 and Fall 2011 semesters. In this update of the initial study, data for the Fall 2012 cohort has been added (at the end of the report) for comparative purposes and to assess the impact of the “15 to Finish” promotional campaign.

**Fall 2009 – Fall 2011 First-Time Freshmen**

Percentage of Headcount Enrollment by Credits Attempted



The majority of first-time freshmen took fewer than 15 credits. 63% of freshmen at both UH Mānoa and UH Hilo, and 85% of the students at UH-West O‘ahu, took fewer than 15 credits. 61.7% of all students took from 12 to 14 credits (Appendix 1). The average credit load was 13.8 hours. Credit counts were system-wide – all credits attempted in the fall semesters were counted, including those taken at campuses other than the home campus. The number of credits attempted varied from a low of 1 to a high of 28.

Selected Characteristics of First-time Freshmen

First-time freshmen at each campus were divided into two populations: those students who took fewer than 15 credits and those who took 15 or more credits in the initial fall semester of study. Student characteristic measures were organized into three groups: Academic Preparation, Demographics and Academic Success (Appendix 2). Tests of significance were performed for all characteristic measures. Tests included the T-test and Chi Square methods.

### Academic Preparation Measures

Students who took 15 or more credit hours had higher average admission test scores, high school GPAs and high school rank ratios than students who took fewer than 15 credits. The differences between the two populations were significant for each of these measures at UH Mānoa, for all but ACT scores and Early Admit history at UH Hilo, and for only the ACT scores at UH West O’ahu.

Academic Preparation Measure	UH Manoa		UH Hilo		UH-West O’ahu	
	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr
SAT Composite Score	1,079	1,116*	952	991*	884	920
ACT Composite Score	23.1	23.6*	20.8	21.3	17.9	20.2*
High School GPA	3.41	3.50*	3.23	3.53*	3.18	3.15
High School Rank Ratio	0.76	0.78*	0.68	0.73*	0.67	0.69
Early Admit	5.7%	7.3%*	7.4%	7.6%	1.7%	4.1%
Credits in Summer	13.9%	9.9%*	3.3%	6.4%*	27.1%	36.7%

### Demographic Characteristics

Demographic Characteristic	UH Manoa		UH Hilo		UH-West O’ahu	
	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr
Mean Age (Years)	18.0	17.9*	18.1	18.0	18.2	18.4
Ethnic Minority <sup>1</sup>	32.7%	26.6%*	47.4%	45.1%	62.6%	49.0%
Pell Recipient	29.3%	24.2%*	42.9%	40.5%	31.6%	22.4%
% of Financial Need Met	76.4%	79.1%*	73.1%	79.1%*	70.4%	68.7%
Hawai’i Resident	69.3%	67.0%*	77.1%	74.9%	88.5%	89.8%

1 Minority includes: African American, American Indian, Filipino, Hawaiian, Hispanic and Pacific Islander.

Percentage enrollment was calculated for selected demographic characteristics for the two student populations for each campus (Appendix 2). The differences between the two populations were tested for statistical significance. For UH Mānoa, variables which tested significant included: mean age, ethnic minority status, gender, Pell grant status, percent of financial need met and residency. For UH Hilo, differences were significant only for percent of financial need met. None of the demographic characteristics tested significant at UH West O’ahu.

### Academic Success Measures

In general, students taking 15 or more credits performed better than students taking fewer than 15 credits. At all three campuses, the population of students taking 15 or more credits had higher initial semester GPAs, had a greater percentage of students with a “B” (GPA 3.0) or a “C+” (GPA 2.5) or higher grade average, and had a greater percentage of students with credit completion ratios >=80% than did the population of students taking fewer than 15 credits. The differences were statistically significant for each of these measures, with the exception of the “B” and

Academic Success Measure	UH Manoa		UH Hilo		UH-West O’ahu	
	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr
1 <sup>st</sup> Semester Grade Point Avg	2.75	2.97*	2.62	2.89*	2.57	2.90*
1 <sup>st</sup> Semester GPA >=“B” Avg	46.3%	58.6%*	41.5%	55.0%*	41.0%	49.0%
1 <sup>st</sup> Semester GPA >=“C+” Avg	67.8%	77.3%*	63.3%	73.0%*	63.3%	77.6%
Credit Completion Ratio >=80%	61.7%	79.6%*	60.8%	81.6%*	57.8%	77.6%*
Credit Withdrawals >=20%	4.3%	8.4%*	3.3%	6.0%*	8.4%	14.3%
Persistence to Next Spring	92.9%	95.2%*	91.2%	94.0%	89.2%	93.9%
Persistence to Next Fall	76.5%	80.5%*	67.3%	75.2%*	63.9%	57.1%

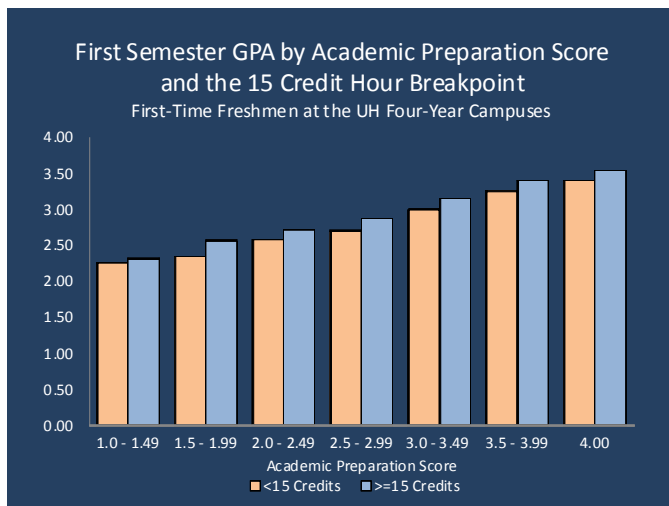
“C+” grade average measures at UH West O’ahu. Persistence was defined as subsequent enrollment at the starting (home) campus. Persistence rates to the next spring semester were higher for the population taking 15 or more credits at all three campuses, though the difference between the populations were significant only at UH Mānoa. Persistence rates to the next fall semester were higher and statistically significant for the population taking 15 or more credits at UH Mānoa and UH Hilo. Conversely, the fall-to-fall persistence rates for the population taking 15 or more credits were lower at UH West O’ahu, but the difference between the two populations was not statistically significant.

Academic Preparation Score Methodology

Examination of these data points raises the question as to whether only students with better academic preparation do better taking 15 or more credits. To address this question, an academic preparation score metric was developed to collapse the academic preparation variables into a single number which could then be used to create cross-tabulations by academic success measure. The resulting data arrays are shown in Appendix 3.

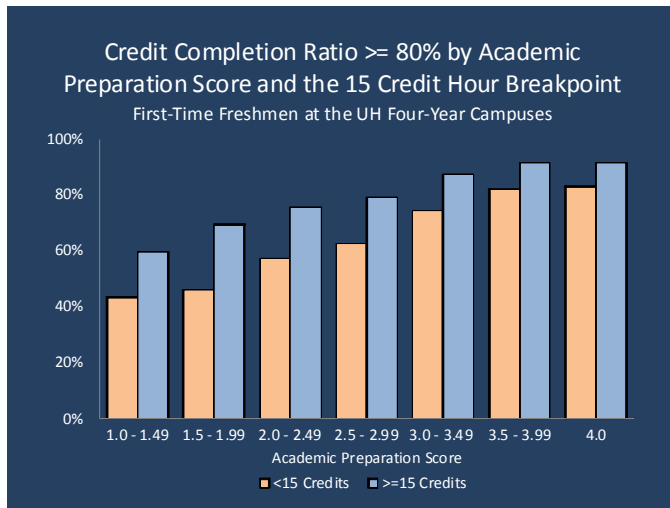
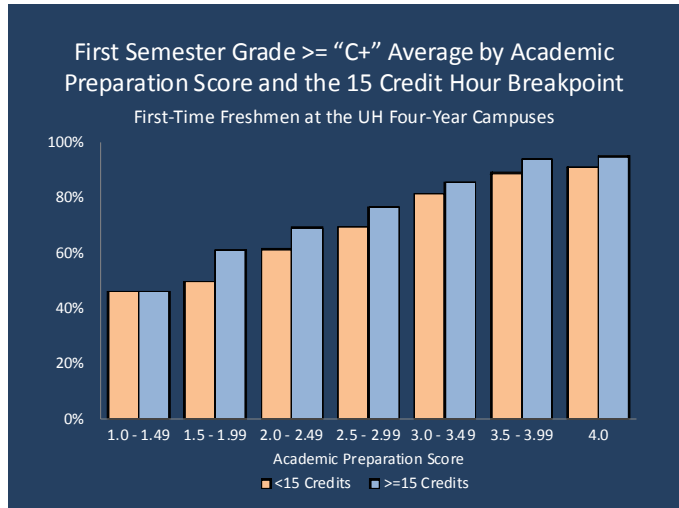
To determine the academic preparation score, each of the four primary academic preparation variables was divided into quartiles. Students were given a score for each variable based upon the quartile into which the variable fell. For example, if a given student had an SAT composite score that fell in the 1<sup>st</sup> quartile (highest), the score for that variable would be 4; if the score fell in the 4<sup>th</sup> quartile (lowest), the score would be 1. The other variables used were ACT composite score (used only if the SAT Composite score was not available), high school GPA and high school rank ratio. A score was provided only if the variable was present in the student record (blanks were excluded). Finally, the scores for the separate variables were summed and divided by the total number of variables present to yield the academic preparation score per student record. Continuing the example, a student with an SAT quartile score of 4, a high school GPA score of 3 and a high school rank ratio of 2 would have an academic preparation score of  $(4+3+2)/3 = 9/3 = 3.0$ . Results were grouped into seven intervals (0.5 breakpoints).

Success Measures by the 15 Credit Hour Breakpoint and Academic Preparation Score



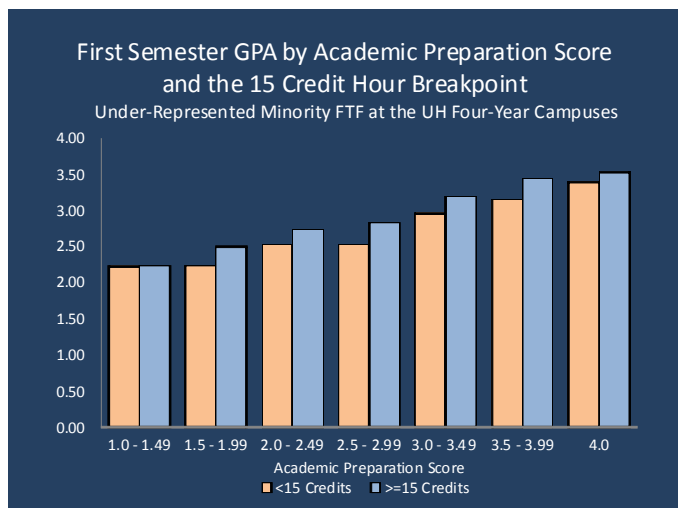
For the four-year campuses in aggregate, students with higher academic preparation scores had higher initial fall semester grade point averages than students with lower academic preparation scores. More importantly, at each of the preparation score breakpoints, students who took 15 or more credits had higher initial semester GPAs. The differences were statistically significant at all but the lowest academic preparation score values (Appendix 3).

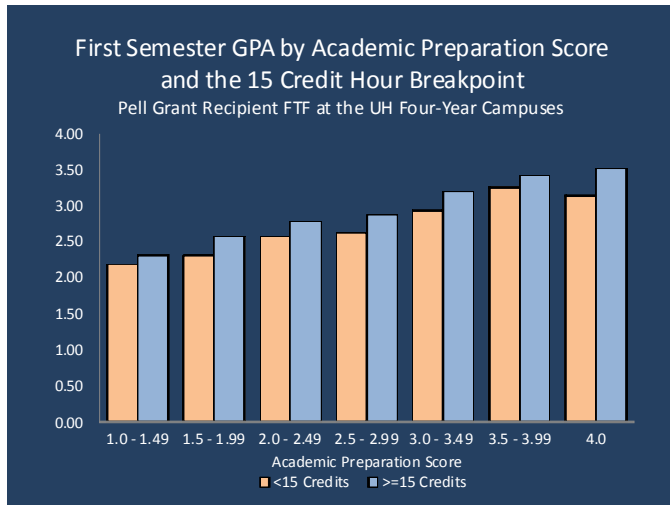
The distribution of students with a “C+” (GPA 2.5) or higher grade average by academic preparation score presents a similar picture. For the four-year campuses in aggregate, students taking 15 or more credit hours performed better at nearly all levels of academic preparation. Only at the lowest academic preparation score values are the results equal. The data for UH Mānoa show a similar result, while for UH Hilo and UH West O’ahu performance by preparation score is more varied. Differences between the populations were significant at only some of the APS breakpoints (Appendix 3).



For the credit completion ratio  $\geq$ 80% measure, students who took 15 or more credits performed much better than students who took fewer than 15 credits, regardless of the preparation score. Furthermore, the difference in performance was greatest for those students with lower academic preparation scores (below 2.5). These results were consistent for all three campuses, with some allowance for small numbers at UH West O’ahu (Appendix 3). Again, differences between the populations were significant for only some of the APS breakpoints.

The trends previously described apply to under-represented minority (URM) students as well. Students with higher academic preparation scores did better than students with lower preparation scores, and students taking 15 or more credits outperformed students taking fewer than 15 credits at nearly all levels of academic preparation. For the Initial Fall Semester GPA measure, differences were significant at most of the APS breakpoints for the UH four year campuses in aggregate (Appendix 3C).

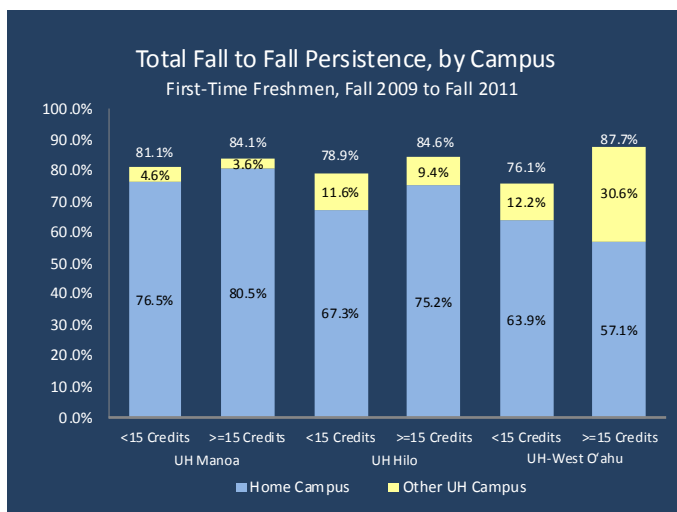
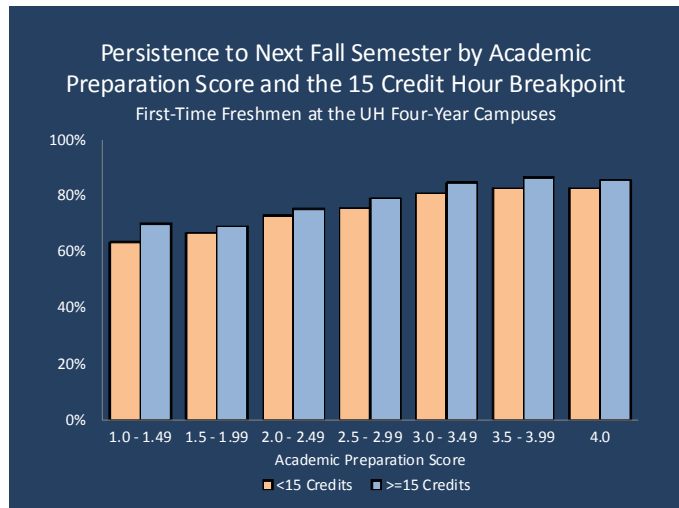




The results were comparable for students receiving Pell grants (Appendix 3C).

## Persistence

For the four-year campuses in aggregate, fall-to-fall persistence was higher for students taking 15 or more credits than for students taking fewer than 15 credits, though the difference between the two populations was less than for the other performance measures discussed. Results varied considerably across the campuses, with UH West O’ahu showing the least consistency (Appendix 3).



Total fall-to-fall persistence, including enrollment at UH campuses other than the starting campus, reveal a somewhat different story. Students who took 15 or more credits persisted at higher rates than those who took fewer than 15 credits. However, students who took 15 or more credits in the initial semester at UH West O’ahu were almost as likely to transfer to other UH campuses as to re-enroll at UH West O’ahu. When these students are included, the total fall-to-fall persistence rate for UH West O’ahu is comparable to the rates at Mānoa and Hilo.

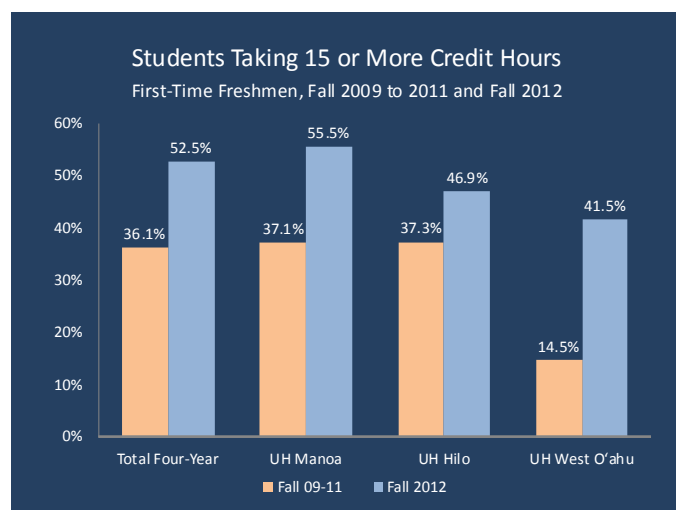
## Conclusion – Initial Study

The results of the initial study support the conclusion that first-time freshmen at the UH four-year campuses can successfully carry 15 credit hours. Student success varies by academic preparation, with those students scoring higher on academic preparation performing better, as measured by initial fall semester GPA, “B” grade average or higher, “C+” grade average or higher, credit completion ratio  $\geq 80\%$  and both fall-to-spring and fall-to-fall persistence. At all but the lowest levels of academic preparation, first-time freshmen taking 15 or more credit hours achieve higher levels of academic success than those taking fewer than 15 credits. The results are consistent across the three University of Hawai‘i four-year campuses. For those students with lower levels of academic preparation, additional support services may be required before recommending higher credit hour loads. Differences in academic performance by demographic characteristic, such as ethnicity, gender or financial resources, merit further research.

## **Follow-Up Analysis: Fall 2012 First-Time Freshmen**

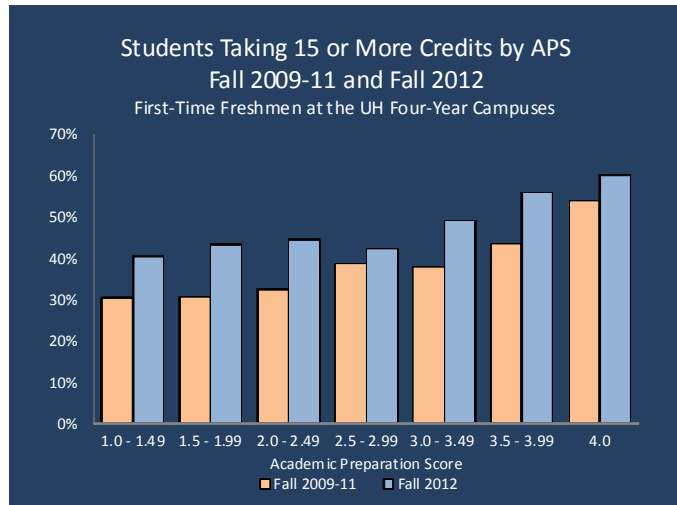
Supported by the initial study, the UH system conducted a vigorous media campaign to encourage students to take 15 credits to finish on-time in four years. The “15 to Finish” campaign included print, radio and television announcements, as well as promotional efforts on-campus, particularly at new student orientation sessions. The results of the campaign were assessed by comparing data from the Fall 2012 cohort of first-time freshmen to the data for the Fall 2009 to Fall 2011 group. Data for Fall 2012 are shown in the following Appendices:

- 1A – Enrollment by Credits Attempted Systemwide, Fall 2012 Cohort
- 2A – Comparison of FTF on Selected Academic Performance Measures, Fall 2009-11 and Fall 2012
- 3A – Selected Performance Measures by Academic Preparation Score, Fall 2012 Cohort
- 3B – Comparison of FTF by Academic Preparation Score, Fall 2009-11 and Fall 2012
- 3D – Selected Performance Measures APS for Minorities and Pell Recipients, Fall 2012
- 4A – Success Measures by Academic Preparation Score, Fall 2012 (charts)



For the four-year campuses in aggregate, 52.5% of the first-time students in the Fall 2012 cohort took 15 or more credits, an increase of 16.4 percentage points over the initial study. Increases were measured at each of the four-year campuses, with the largest percentage improvement occurring at UH-West O‘ahu. The average credit load increased from 13.8 to 14.3 hours. The percentage of students taking 12 to 14 credits declined from 61.7% to 44.3%, while the percentage of students taking fewer than 15 credits declined from 63.9% to 47.5%.

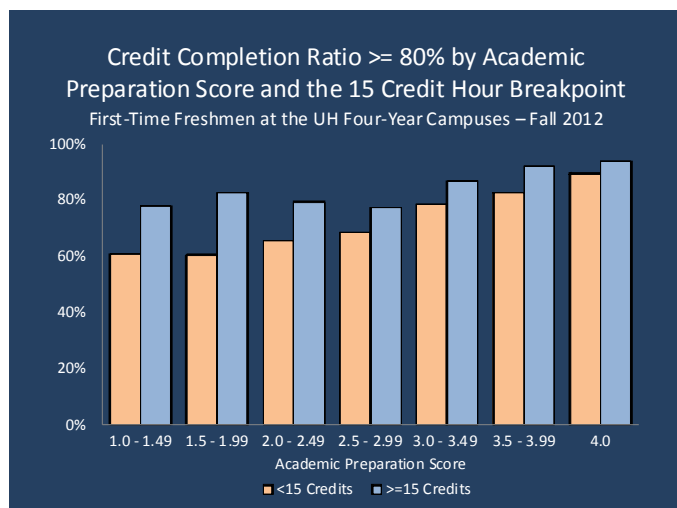
The increase in students taking 15 or more credits in Fall 2012 was not limited to certain levels of academic preparation. The distribution of students by academic preparation score shows the same pattern of increasing percentage of students taking 15 or more credits as the academic preparation scores increase. However, the percentage of students taking 15 or more credits was higher for the Fall 2012 cohort at all the academic preparation score breakpoints (Appendices 1 & 1A).



Academic Success Measure	Fall 2009-11		Fall 2012	
	<15 Cr	>=15 Cr	<15 Cr	>=15 Cr
1 <sup>st</sup> Semester Grade Point Avg	2.71	2.95*	2.74	2.98*
1 <sup>st</sup> Semester GPA >="B" Avg	44.9%	57.7%*	46.0%	58.9%*
1 <sup>st</sup> Semester GPA >="C+" Avg	66.4%	76.5%*	68.6%	78.4%*
Credit Completion Ratio >=80%	61.2%	79.9%*	77.5%	88.2%*
Credit Withdrawals >=20%	4.4%	8.0%*	4.9%	6.4%
Persistence to Next Spring	92.4%	94.9%*	90.2%	95.0%*
Persistence to Next Fall	74.1%	79.1%*	69.0%	79.4%*

Students taking 15 or more credit hours continued to outperform those students taking fewer than 15 credits (Appendix 2A). The fact that there was no decline in performance, despite the fact that more students took 15 or more credits, was encouraging. The difference in performance between students taking 15 or more credits and those taking fewer than 15 credits tested significant on nearly all the performance measures – a result similar to the initial study for the Fall 2009 to Fall 2011 group.

For example, for the Fall 2012 cohort, as the academic preparation scores increase so does the percentage of students with Credit Completion Ratio >=80%. However, as in the initial study, students taking 15 or more credits scored higher on this performance measure regardless of the academic preparation score. Furthermore, for the four-year campuses taken as a whole, the percentages across the APS breakpoints were higher for the Fall 2012 cohort than for the cohorts in the initial study (Appendix 3 and 3A).





## Conclusion – Fall 2012 Follow-Up Analysis

The public relations efforts undertaken by the University of Hawai'i system and campus initiatives that have encouraged students to take "*15 to Finish*" have met with clear success. Not only can students manage the higher credit loads, but those students that do take 15 or more credits perform as well or better than those taking fewer than 15 credits. Fifteen credits, and not 12 credits, should be considered a full-time work load.

However, recommending a 15 credit hour course load may not be in the best interests of all students. Advisors play a pivotal role in determining the optimal work load for each student. The development and refinement of program specific academic maps, semester-by-semester plans that provide for on-time graduation, will help to guide student course selection, assist campuses in course scheduling and help to eliminate unnecessary swirling. Ultimately, the beneficiary of these efforts will be the students themselves, who will complete their programs of study with fewer courses, in less time and at lower cost.

APPENDIX 1  
 ENROLLMENT BY CREDITS ATTEMPTED SYSTEMWIDE  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTERS, 2009 TO 2011

Credits Attempted	Headcount by Credits Attempted				Percent of Enrollment by Credits Attempted			
	Mānoa	Hilo	W-O'ahu	Total	Mānoa	Hilo	W-O'ahu	Total
28	1			1	<0.1%			<0.1%
27	1			1	<0.1%			<0.1%
23	1			1	<0.1%			<0.1%
22	1			1	<0.1%			<0.1%
21	2			2	<0.1%			<0.1%
20	1	1		2	<0.1%	0.1%		<0.1%
19	68	2		70	1.2%	0.1%		0.9%
18	119	35	3	157	2.1%	2.6%	0.9%	2.1%
17	292	38	2	332	5.0%	2.8%	0.6%	4.4%
16	686	143	14	843	11.8%	10.6%	4.2%	11.3%
15	976	282	30	1,288	16.8%	21.0%	8.9%	17.2%
14	880	129	13	1,022	15.2%	9.6%	3.9%	13.7%
13	1,331	210	105	1,646	23.0%	15.6%	31.2%	22.0%
12	1,323	475	144	1,942	22.8%	35.3%	42.7%	26.0%
11	13	2	1	16	0.2%	0.1%	0.3%	0.2%
10	8	4	6	18	0.1%	0.3%	1.8%	0.2%
9	28	10	9	47	0.5%	0.7%	2.7%	0.6%
8	19		1	20	0.3%		0.3%	0.3%
7	7	1	1	9	0.1%	0.1%	0.3%	0.1%
6	14	8	3	25	0.2%	0.6%	0.9%	0.3%
5	3	1		4	0.1%	0.1%		0.1%
4	5	2		7	0.1%	0.1%		0.1%
3	13		5	18	0.2%		1.5%	0.2%
2		1		1		0.1%		<0.1%
1	2			2	<0.1%			<0.1%
Total	5,794	1,344	337	7,475	100.0%	100.0%	100.0%	100.0%
12-14 Credits	3,534	814	262	4,610	61.0%	60.6%	77.7%	61.7%
>=15 Credits	2,148	501	49	2,698	37.1%	37.3%	14.5%	36.1%
<15 Credits	3,646	843	288	4,777	62.9%	62.7%	85.5%	63.9%
Average	13.9	13.6	12.6	13.8	100.0%	100.0%	100.0%	100.0%

First-Time Freshmen defined by First Time Fr IRO = "Y"; classified students only  
 Credits attempted at any UH campus.

Source: IRO Base, Census.

UH Institutional Research and Analysis Office; October 2012.

APPENDIX 1A  
 ENROLLMENT BY CREDITS ATTEMPTED SYSTEMWIDE  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTER 2012 ONLY

Credits Attempted	Headcount by Credits Attempted			Percent of Enrollment by Credits Attempted				
	Mānoa	Hilo	W-O'ahu	Total	Mānoa	Hilo	W-O'ahu	Total
23		1		1		0.2%		<0.1%
22								
21	2			2	0.1%			0.1%
20	1	1		2	0.1%	0.2%		0.1%
19	31		1	32	1.6%		0.3%	1.2%
18	61	11	5	77	3.1%	2.4%	1.7%	2.8%
17	144	15	7	166	7.3%	3.3%	2.3%	6.1%
16	380	68	60	508	19.3%	14.9%	19.9%	18.7%
15	471	118	52	641	24.0%	25.9%	17.3%	23.6%
14	326	39	16	381	16.6%	8.6%	5.3%	14.0%
13	271	67	56	394	13.8%	14.7%	18.6%	14.5%
12	227	128	76	431	11.6%	28.1%	25.2%	15.8%
11	10		2	12	0.5%		0.7%	0.4%
10	14	1		15	0.7%	0.2%		0.6%
9	10	3	10	23	0.5%	0.7%	3.3%	0.8%
8	1	1	1	3	0.1%	0.2%	0.3%	0.1%
7			3	3			1.0%	0.1%
6	5	3	5	13	0.3%	0.7%	1.7%	0.5%
5								
4	4		1	5	0.2%		0.3%	0.2%
3	6		6	12	0.3%		2.0%	0.4%
2								
1								
Total	1,964	456	301	2,721	100.0%	100.0%	100.0%	100.0%
12-14 Credits	824	234	148	1,206	42.0%	51.3%	49.2%	44.3%
>=15 Credits	1,090	214	125	1,429	55.5%	46.9%	41.5%	52.5%
<15 Credits	874	242	176	1,292	44.5%	53.1%	58.5%	47.5%
Average	14.5	14.0	13.4	14.3	100.0%	100.0%	100.0%	100.0%

First-Time Freshmen defined by First Time Fr IRO = "Y"; classified students only  
 Credits attempted at any UH campus.

Source: IRO Base, Census.

UH Institutional Research and Analysis Office; March 2013.

APPENDIX 2  
CHARACTERISTICS OF FIRST-TIME FRESHMEN BY SYSTEMWIDE CREDITS ATTEMPTED  
FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
FALL SEMESTERS, 2009 TO 2011

	UH Four-Year				UH Mānoa				UH Hilo				UH-West O'ahu			
	Total	Credits Taken		Test Value	Total	Credits Taken		Test Value	Total	Credits Taken		Test Value	Total	Credits Taken		Test Value
		<15	>=15			<15	>=15			<15	>=15			<15	>=15	
<b>Number of First-Time Freshmen</b>	7,475	4,777	2,698		5,794	3,646	2,148		1,344	843	501		337	288	49	
Percentage by Credit Breakpoint	129%	82.4%	46.6%		100%	62.9%	37.1%		100%	62.7%	37.3%		100%	85.5%	14.5%	
<b>Academic Preparation:</b>																
SAT Composite Score	1,061	1,045	1,088	11.23 *	1,093	1,079	1,116	9.48 *	967	952	991	4.200 *	889	884	920	1.21
ACT Composite Score	22.6	22.4	23.1	4.11 *	23.3	23.1	23.6	2.86 *	21.0	20.8	21.3	0.968	18.3	17.9	20.2	2.28 *
High School GPA	3.41	3.36	3.50	5.05 *	3.45	3.41	3.50	8.07 *	3.34	3.23	3.53	2.209 *	3.17	3.18	3.15	0.47
High School Rank Ratio	0.75	0.74	0.77	6.53 *	0.77	0.76	0.78	4.49 *	0.70	0.68	0.73	3.658 *	0.67	0.67	0.69	0.62
Early Admit / Running Start (% of Total)	6.3%	5.8%	7.3%	6.44 *	6.3%	5.7%	7.3%	5.36 *	7.4%	7.4%	7.6%	0.024	2.1%	1.7%	4.1%	1.13
Credits Earned in Prior Summer (% of Total)	11.7%	12.8%	9.7%	15.85 *	12.4%	13.9%	9.9%	19.76 *	4.5%	3.3%	6.4%	6.925 *	28.5%	27.1%	36.7%	1.91
<b>Demographics:</b>																
Age <=19	98.0%	97.6%	98.5%	6.70 *	98.4%	98.1%	99.1%	8.64 *	96.4%	96.2%	96.8%	0.33	95.5%	96.2%	91.8%	1.86
Mean Age	18.0	18.0	17.9	2.00 *	18.0	18.0	17.9	2.21 *	18.1	18.1	18.0	0.30	18.2	18.2	18.4	0.63
Ethnic Minority <sup>1</sup>	34.7%	37.1%	30.5%	33.01 *	30.4%	32.7%	26.6%	23.27 *	46.6%	47.4%	45.1%	0.69	60.2%	62.2%	49.0%	3.03
Gender:				3.86				6.71 *				0.29				0.21
Female	55.1%	54.3%	56.5%		53.9%	52.7%	56.0%		57.8%	57.5%	58.3%		64.1%	64.6%	61.2%	
Male	44.3%	45.1%	42.8%		45.5%	46.8%	43.4%		41.0%	41.2%	40.7%		35.9%	35.4%	38.8%	
Other	0.6%	0.6%	0.7%		0.5%	0.5%	0.6%		1.2%	1.3%	1.0%					
High School Type:				8.75				4.57				1.04				1.14
HI Public	48.1%	49.2%	46.2%		46.1%	46.9%	44.8%		51.1%	52.1%	49.5%		70.6%	70.5%	71.4%	
HI Private	22.8%	22.5%	23.3%		22.9%	22.6%	23.4%		22.9%	22.8%	23.2%		20.8%	21.2%	18.4%	
Mainland	25.5%	25.0%	26.5%		27.9%	27.7%	28.2%		19.7%	19.1%	20.8%		7.7%	7.3%	10.2%	
Foreign / US Related	2.8%	2.6%	3.3%		2.8%	2.5%	3.3%		3.7%	3.6%	4.0%		0.6%	0.7%		
Other <sup>2</sup>	0.7%	0.7%	0.7%		0.3%	0.3%	0.3%		2.5%	2.5%	2.6%		0.3%	0.3%		
Recent High School Graduate <sup>3</sup>	95.5%	95.3%	95.8%	1.02	96.3%	96.1%	96.6%	0.67	92.6%	92.2%	93.2%	0.50	92.6%	93.4%	87.8%	1.94
Pell Recipient <sup>4</sup>	30.2%	31.9%	27.2%	18.18 *	27.4%	29.3%	24.2%	18.26 *	42.0%	42.9%	40.5%	0.76	30.3%	31.6%	22.4%	1.66
Percent of Financial Need Met <sup>5</sup>	76.6%	75.5%	79.0%	3.03 *	77.3%	76.4%	79.1%	2.07 *	75.2%	73.1%	79.1%	2.29 *	70.2%	70.4%	68.7%	0.16
Residency:				12.25 *				10.00 *				2.86				1.16
Resident	70.8%	71.9%	68.9%		68.5%	69.3%	67.0%		76.3%	77.1%	74.9%		88.7%	88.5%	89.8%	
Non-Resident	9.3%	8.6%	10.4%		9.5%	8.6%	11.0%		9.4%	9.7%	8.8%		4.5%	4.9%	2.0%	
Exempted	2.6%	2.7%	2.3%		2.6%	2.8%	2.3%		1.3%	1.3%	1.4%		6.5%	6.3%	8.2%	
150% Resident <sup>6</sup>	17.4%	16.8%	18.4%		19.4%	19.3%	19.6%		13.0%	11.9%	15.0%		0.3%	0.3%		

APPENDIX 2  
 CHARACTERISTICS OF FIRST-TIME FRESHMEN BY SYSTEMWIDE CREDITS ATTEMPTED  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTERS, 2009 TO 2011

	UH Four-Year				UH Mānoa				UH Hilo				UH-West O'ahu			
	Total	Credits Taken <15	Credits Taken >=15	Test Value	Total	Credits Taken <15	Credits Taken >=15	Test Value	Total	Credits Taken <15	Credits Taken >=15	Test Value	Total	Credits Taken <15	Credits Taken >=15	Test Value
<b>Academic Success:</b>																
1st Semester GPA (Mean) <sup>7</sup>	2.80	2.71	2.95	11.64 *	2.83	2.75	2.97	9.86 *	2.72	2.62	2.89	5.12 *	2.62	2.57	2.90	2.18 *
1st Semester Grade >="B" Avg (% of Total) <sup>7,8</sup>	49.6%	44.9%	57.7%	109.26 *	50.9%	46.3%	58.6%	81.47 *	46.6%	41.5%	55.0%	22.96 *	42.2%	41.0%	49.0%	1.09
1st Semester Grade >="C+" Avg (% of Total) <sup>7,9</sup>	70.1%	66.4%	76.5%	77.30 *	71.3%	67.8%	77.3%	58.35 *	66.9%	63.3%	73.0%	13.31 *	65.4%	63.3%	77.6%	3.77
Credit Completion Ratio >=80% (% of Total) <sup>10</sup>	68.0%	61.2%	79.9%	274.05 *	68.3%	61.7%	79.6%	199.20 *	68.6%	60.8%	81.6%	63.11 *	60.7%	57.8%	77.6%	6.82 *
Credit Withdrawals >=20% <sup>11</sup>	5.7%	4.4%	8.0%	42.44 *	5.8%	4.3%	8.4%	40.37 *	4.3%	3.3%	6.0%	5.28 *	9.2%	8.4%	14.3%	1.75
Persistence to Next Spring (% of Total) <sup>12</sup>	93.3%	92.4%	94.9%	17.56 *	93.8%	92.9%	95.2%	11.52 *	92.3%	91.2%	94.0%	3.43	89.9%	89.2%	93.9%	0.99
Persistence to Next Fall (% of Total)	75.9%	74.1%	79.1%	23.46 *	78.0%	76.5%	80.5%	12.55 *	70.2%	67.3%	75.2%	9.60 *	62.9%	63.9%	57.1%	0.82

Note: Tests of significance used t-test and Chi Square methods.

\* Indicates significant at the 0.05 confidence level.

<sup>1</sup> Minority ethnicities: African American, American Indian, Filipino, Hawaiian, Hispanic and Pacific Islander.

<sup>2</sup> Other includes: GED recipients, students who did not graduate from high school, home schoolers and unknown.

<sup>3</sup> Recent high school graduate year = calendar year of entry to college (for example, June 2010 for Fall 2010 first-time freshmen),

<sup>4</sup> Federal Pell Award accepted in academic year of entry (any campus).

<sup>5</sup> Data for the academic year of entry per home campus.

<sup>6</sup> Includes Revised Institutional Exemption and WUE — students who pay 150% of resident tuition.

<sup>7</sup> Excludes courses for which grade points were not earned: Grades CR, I, N, NC & W.

<sup>8</sup> "B" average defined as Grade Point Average >=3.0.

<sup>9</sup> "C+" average defined as Grade Point Average >=2.5.

<sup>10</sup> Percentage of credit hours taken that are successfully completed; success defined as grade C or above (including non-letter grade options).

<sup>11</sup> Calculated on total credits taken per student record.

<sup>12</sup> Persistence at Home Campus (campus where first enrolled as a freshman).

Source: IRO Base, Census; IRO Regs, EOS; MST\_Award\_by\_Person (Pell Status); MST\_Applicant\_Need (Financial Need Met).

UH Institutional Research and Analysis Office; October 2012; revised May 2013.

APPENDIX 2A  
 COMPARISON OF FIRST-TIME FRESHMEN AT THE FOUR-YEAR CAMPUSES  
 ON SELECTED ACADEMIC PERFORMANCE MEASURES  
 WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE  
 FALL SEMESTERS 2009 TO 2011 AND FALL 2012

Comparison Group	UH Four-Year			UH Mānoa			UH Hilo			UH-West O'ahu		
	Total	Credits Taken <15	>=15	Total	Credits Taken <15	>=15	Total	Credits Taken <15	>=15	Total	Credits Taken <15	>=15
<b>Fall 2009 to Fall 2011 Group:</b>												
1st Semester GPA (Mean) <sup>1</sup>	2.80	2.71	2.95 *	2.83	2.75	2.97 *	2.72	2.62	2.89 *	2.62	2.57	2.90 *
1st Semester Grade >="B" Avg (% of Total) <sup>1,2</sup>	49.6%	44.9%	57.7% *	50.9%	46.3%	58.6% *	46.6%	41.5%	55.0% *	42.2%	41.0%	49.0%
1st Semester Grade >="C+" Avg (% of Total) <sup>1,3</sup>	70.1%	66.4%	76.5% *	71.3%	67.8%	77.3% *	66.9%	63.3%	73.0% *	65.4%	63.3%	77.6%
Credit Completion Ratio >=80% (% of Total) <sup>4</sup>	68.0%	61.2%	79.9% *	68.3%	61.7%	79.6% *	68.6%	60.8%	81.6% *	60.7%	57.8%	77.6% *
Credit Withdrawals >=20% <sup>5</sup>	5.7%	4.4%	8.0% *	5.8%	4.3%	8.4% *	4.3%	3.3%	6.0% *	9.2%	8.4%	14.3%
Persistence to Next Spring (% of Total) <sup>6</sup>	93.3%	92.4%	94.9% *	93.8%	92.9%	95.2% *	92.3%	91.2%	94.0%	89.9%	89.2%	93.9%
Persistence to Next Fall (% of Total)	75.9%	74.1%	79.1% *	78.0%	76.5%	80.5% *	70.2%	67.3%	75.2% *	62.9%	63.9%	57.1%
<b>Fall 2012 Group:</b>												
1st Semester GPA (Mean) <sup>1</sup>	2.87	2.74	2.98 *	2.91	2.79	3.01 *	2.69	2.53	2.88 *	2.83	2.78	2.91
1st Semester Grade >="B" Avg (% of Total) <sup>1,2</sup>	52.8%	46.0%	58.9% *	54.2%	46.8%	60.1% *	46.7%	39.4%	54.7% *	53.0%	51.1%	55.6%
1st Semester Grade >="C+" Avg (% of Total) <sup>1,3</sup>	73.8%	68.6%	78.4% *	76.0%	70.6%	80.4% *	64.4%	60.2%	69.2% *	73.2%	70.1%	77.4%
Credit Completion Ratio >=80% (% of Total) <sup>4</sup>	83.1%	77.5%	88.2% *	84.7%	79.7%	88.6% *	76.7%	69.6%	84.6% *	82.9%	77.7%	90.3% *
Credit Withdrawals >=20% <sup>5</sup>	5.7%	4.9%	6.4%	6.0%	4.8%	6.9%	5.5%	5.0%	6.1%	4.3%	5.1%	3.2%
Persistence to Next Spring (% of Total) <sup>6</sup>	92.8%	90.2%	95.0% *	93.5%	91.1%	95.5% *	91.9%	89.3%	94.9% *	89.0%	87.5%	91.2%
Persistence to Next Fall (% of Total) <sup>7</sup>	74.5%	69.0%	79.4% *	78.0%	72.7%	82.2% *	68.9%	64.5%	73.8% *	60.1%	57.4%	64.0%

Note: Tests of significance used t-test and Chi Square methods.

\* Indicates significant at the 0.05 confidence level.

<sup>1</sup> Excludes courses for which grade points were not earned: Grades CR, I, N, NC & W.

<sup>2</sup> "B" average defined as Grade Point Average >=3.0.

<sup>3</sup> "C" average defined as Grade Point Average >=2.5.

<sup>4</sup> Percentage of credit hours taken that are successfully completed; success defined as grade C or above (including non-letter grade options).

<sup>5</sup> Calculated on total credits taken per student record.

<sup>6</sup> Persistence at Home Campus (campus where first enrolled as a freshman).

<sup>7</sup> Fall to Fall persistence information not yet available for Fall 2012 first-time freshmen.

Source: IRO Base, Census; IRO Regs, EOS.

UH Institutional Research and Analysis Office; May 2013; revised September 2013.

APPENDIX 3  
 SELECTED PERFORMANCE MEASURES BY ACADEMIC PREPARATION SCORE  
 WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTERS, 2009 TO 2011

Academic Preparation Score	UH Four-Year			UH Four-Year			UH Four-Year			UH Four-Year			UH Four-Year			UH Four-Year									
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits
4.0	667	307	360 *	3.48	3.40	3.55 *	86%	83%	88% *	93%	91%	95% *	88%	83%	92% *	95%	94%	96% *	84%	83%	86% *				
3.5 - 3.99	614	346	268 *	3.32	3.26	3.40 *	80%	75%	85% *	91%	89%	94% *	86%	82%	91%	95%	93%	97% *	84%	83%	87% *				
3.0 - 3.49	1,406	872	534	3.06	3.00	3.16 *	64%	61%	70%	83%	81%	86%	79%	74%	87%	94%	93%	96%	82%	81%	85%				
2.5 - 2.99	1,009	618	391	2.77	2.70	2.87 *	48%	44%	55%	72%	70%	77%	69%	63%	79%	92%	91%	94%	77%	76%	79%				
2.0 - 2.49	1,613	1,090	523 *	2.62	2.58	2.71 *	39%	36%	45% *	64%	61%	69% *	63%	57%	76% *	93%	92%	95% *	74%	73%	75% *				
1.5 - 1.99	903	625	278 *	2.42	2.35	2.56 *	29%	27%	33% *	53%	50%	61%	53%	46%	69%	92%	92%	91% *	67%	67%	69% *				
1.0 - 1.49	932	648	284 *	2.28	2.26	2.32	21%	21%	21% *	46%	46%	46% *	48%	43%	60% *	91%	90%	94% *	65%	63%	70% *				
NA	331	271	60	2.84	2.80	3.02	50%	47%	63%	71%	68%	81%	63%	59%	81%	95%	94%	98%	77%	77%	80%				
All	7,475	4,777	2,698	2.80	2.71	2.95	50%	45%	58%	70%	67%	76%	68%	61%	80%	93%	92%	95%	76%	74%	79%				

Academic Preparation Score	UH Mānoa			UH Mānoa			UH Mānoa			UH Mānoa			UH Mānoa			UH Mānoa									
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits
4.0	502	219	283 *	3.49	3.45	3.52	86%	85%	87% *	94%	93%	94% *	88%	85%	90% *	96%	95%	97% *	86%	84%	88% *				
3.5 - 3.99	489	263	226 *	3.35	3.31	3.40	81%	78%	84% *	92%	91%	94% *	86%	82%	91% *	96%	94%	98% *	86%	84%	88% *				
3.0 - 3.49	1,075	654	421	3.09	3.02	3.20 *	67%	63%	72%	84%	82%	88%	79%	74%	87%	95%	94%	96%	84%	83%	86%				
2.5 - 2.99	763	470	293	2.80	2.73	2.91 *	49%	44%	57%	74%	71%	79%	70%	64%	79%	93%	93%	94%	79%	79%	81%				
2.0 - 2.49	1,220	809	411 *	2.64	2.61	2.70	40%	37%	45% *	64%	62%	69% *	63%	58%	74% *	93%	92%	95% *	76%	76%	77% *				
1.5 - 1.99	708	479	229 *	2.44	2.37	2.57 *	30%	29%	34% *	54%	51%	61%	53%	46%	68%	92%	93%	90% *	68%	69%	67% *				
1.0 - 1.49	722	492	230 *	2.37	2.35	2.41	24%	23%	24% *	50%	50%	49% *	52%	47%	62%	92%	90%	95% *	70%	67%	74% *				
NA	315	260	55	2.82	2.79	2.96	49%	46%	61%	70%	68%	80%	62%	58%	81%	96%	95%	98%	78%	78%	80%				
All	5,794	3,646	2,148	2.83	2.75	2.97	51%	46%	59%	71%	68%	77%	68%	62%	80%	94%	93%	95%	78%	77%	81%				

**APPENDIX 3**  
**SELECTED PERFORMANCE MEASURES BY ACADEMIC PREPARATION SCORE**  
**WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE**  
**FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES**  
**FALL SEMESTERS, 2009 TO 2011**

Academic Preparation Score	UH Hilo			UH Hilo			UH Hilo			UH Hilo			UH Hilo			UH Hilo					
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA Total	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem Total	>="B" <15 Credits	>="B" >=15 Credits	GPA Initial Sem Total	>="C+" <15 Credits	>="C+" >=15 Credits	Credit Completion Ratio >80% Total	>80% <15 Credits	>80% >=15 Credits	Persistence to Next Spring Total	<15 Credits	>=15 Credits	Persistence to Next Fall Total	<15 Credits	>=15 Credits
4.0	139	67	72 *	3.50	3.34	3.64 *	87%	82%	92% *	93%	88%	97% *	89%	82%	96% *	94%	94%	94% *	80%	82%	78% *
3.5 - 3.99	101	61	40	3.29	3.19	3.44 *	80%	72%	93%	91%	90%	93%	89%	87%	93%	92%	92%	93%	79%	80%	78%
3.0 - 3.49	252	150	102	2.98	2.95	3.02	57%	53%	63%	80%	81%	79%	82%	78%	88%	94%	93%	96%	79%	79%	80%
2.5 - 2.99	201	111	90 *	2.69	2.65	2.75	46%	45%	47%	69%	69%	69%	70%	63%	79%	92%	89%	94% *	73%	69%	77% *
2.0 - 2.49	309	207	102	2.57	2.49	2.71 *	38%	34%	44%	63%	60%	69%	64%	56%	80%	92%	91%	93%	67%	64%	74%
1.5 - 1.99	161	116	45 *	2.34	2.27	2.50	25%	21%	33%	48%	43%	60%	53%	44%	76%	93%	91%	96% *	63%	59%	76%
1.0 - 1.49	166	121	45 *	1.95	1.99	1.85	12%	14%	5% *	31%	32%	30% *	39%	35%	49%	90%	90%	89% *	53%	51%	58% *
NA	15	10	5	3.33	3.16	3.62	79%	78%	80%	86%	78%	100%	80%	80%	80%	87%	80%	100%	60%	50%	80%
All	1,344	843	501	2.72	2.62	2.89	47%	41%	55%	67%	63%	73%	69%	61%	82%	92%	91%	94%	70%	67%	75%

Academic Preparation Score	UH-West O'ahu			UH-West O'ahu			UH-West O'ahu			UH-West O'ahu			UH-West O'ahu			UH-West O'ahu					
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA Total	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem Total	>="B" <15 Credits	>="B" >=15 Credits	GPA Initial Sem Total	>="C+" <15 Credits	>="C+" >=15 Credits	Credit Completion Ratio >80% Total	>80% <15 Credits	>80% >=15 Credits	Persistence to Next Spring Total	<15 Credits	>=15 Credits	Persistence to Next Fall Total	<15 Credits	>=15 Credits
4.0	26	21	5	3.21	3.05	3.85	76%	70%	100%	84%	80%	100%	73%	67%	100%	88%	90%	80%	69%	67%	80%
3.5 - 3.99	24	22	2	2.80	2.80	2.87	50%	50%	50%	67%	64%	100%	67%	64%	100%	96%	95%	100%	75%	77%	50%
3.0 - 3.49	79	68	11	2.87	2.85	2.98	56%	57%	55%	76%	76%	73%	72%	71%	82%	89%	88%	91%	68%	66%	82%
2.5 - 2.99	45	37	8	2.57	2.48	3.00	47%	43%	63%	64%	59%	88%	56%	51%	75%	84%	81%	100%	58%	59%	50%
2.0 - 2.49	84	74	10	2.59	2.54	2.99	34%	33%	40%	66%	63%	90%	63%	59%	90%	93%	92%	100%	64%	68%	40%
1.5 - 1.99	34	30	4	2.33	2.28	2.74	21%	20%	25%	56%	53%	75%	59%	57%	75%	88%	87%	100%	68%	63%	100%
1.0 - 1.49	44	35	9	2.03	1.99	2.17	19%	18%	22%	42%	41%	44%	32%	29%	44%	91%	91%	89%	43%	49%	22%
NA	1	1	0	4.00	4.00		100%	100%		100%	100%		100%	100%		100%	100%		0%	0%	
All	337	288	49	2.62	2.57	2.90	42%	41%	49%	65%	63%	78%	61%	58%	78%	90%	89%	94%	63%	64%	57%

Column proportion test; \* Indicates significant at the 0.05 confidence level; t-test and z-score statistics.

Source: IRO Base, Census; IRO Regs, EOS.

UH Institutional Research and Analysis Office; October 2012; revised July 2013.



APPENDIX 3A  
 SELECTED PERFORMANCE MEASURES BY ACADEMIC PREPARATION SCORE  
 WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTER 2012

Academic Preparation Score	UH Four-Year			UH Four-Year			UH Four-Year			UH Four-Year			UH Four-Year			UH Four-Year					
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B" Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+" Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80% Total	<15 Credits	>=15 Credits	Persistence to Next Spring Total	<15 Credits	>=15 Credits	Persistence to Next Fall Total	<15 Credits	>=15 Credits
4.0	892	355	537 *	3.32	3.21	3.39 *	77%	69%	82% *	91%	87%	94% *	92%	90%	94% *	96%	93%	98% *	85%	81%	88% *
3.5 - 3.99	384	169	215	2.97	2.90	3.01	58%	53%	62%	78%	75%	80%	88%	83%	92%	93%	92%	94%	75%	73%	77%
3.0 - 3.49	583	296	287	2.73	2.64	2.82 *	44%	39%	50%	70%	66%	74%	83%	79%	87%	91%	89%	93%	69%	63%	75%
2.5 - 2.99	291	168	123 *	2.40	2.33	2.51	29%	24%	35%	54%	51%	58% *	72%	68%	77% *	90%	89%	91% *	67%	63%	73% *
2.0 - 2.49	317	176	141 *	2.44	2.39	2.49	29%	33%	25% *	57%	56%	58% *	72%	66%	79% *	89%	87%	91% *	65%	60%	72% *
1.5 - 1.99	67	38	29	2.29	2.26	2.34	23%	24%	21%	44%	38%	52%	70%	61%	83%	94%	92%	97%	69%	58%	83%
1.0 - 1.49	69	41	28 *	2.46	2.56	2.30	35%	46%	19% *	54%	59%	48% *	68%	61%	78%	88%	88%	89% *	54%	59%	46% *
NA	118	49	69	2.68	2.57	2.75	46%	41%	50%	68%	63%	72%	75%	67%	81%	93%	90%	96%	75%	73%	77%
All	2,721	1,292	1,429	2.87	2.74	2.98	53%	46%	59%	74%	69%	78%	83%	78%	88%	93%	90%	95%	74%	69%	79%

Academic Preparation Score	UH Mānoa			UH Mānoa			UH Mānoa			UH Mānoa			UH Mānoa			UH Mānoa					
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B" Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+" Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80% Total	<15 Credits	>=15 Credits	Persistence to Next Spring Total	<15 Credits	>=15 Credits	Persistence to Next Fall Total	<15 Credits	>=15 Credits
4.0	746	296	450 *	3.32	3.22	3.39 *	76%	68%	81% *	91%	87%	94% *	92%	90%	94% *	97%	94%	98% *	87%	83%	89% *
3.5 - 3.99	298	126	172	2.94	2.88	2.99	57%	53%	60%	77%	76%	78%	88%	81%	92%	93%	90%	95%	77%	74%	80%
3.0 - 3.49	400	199	201 *	2.68	2.56	2.80 *	40%	35%	46%	69%	62%	75%	83%	78%	87% *	91%	88%	94% *	72%	64%	79%
2.5 - 2.99	195	102	93 *	2.42	2.34	2.52	29%	22%	38%	56%	52%	60%	72%	68%	76%	91%	90%	91% *	65%	61%	70% *
2.0 - 2.49	168	84	84	2.42	2.41	2.43	25%	28%	21% *	56%	54%	57%	73%	68%	77%	90%	88%	92%	71%	68%	75%
1.5 - 1.99	20	8	12	2.47	2.43	2.50	25%	25%	25%	50%	50%	50%	85%	88%	83%	90%	88%	92%	75%	50%	92%
1.0 - 1.49	23	12	11	2.49	2.48	2.51	39%	50%	27%	61%	58%	64%	70%	50%	91%	100%	100%	100%	74%	75%	73%
NA	114	47	67	2.70	2.60	2.76	46%	40%	50%	69%	64%	73%	76%	68%	82%	94%	91%	96%	76%	74%	78%
All	1,964	874	1,090	2.91	2.79	3.01	54%	47%	60%	76%	71%	80%	85%	80%	89%	94%	91%	96%	78%	73%	82%

APPENDIX 3A  
 SELECTED PERFORMANCE MEASURES BY ACADEMIC PREPARATION SCORE  
 WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTER 2012

Academic Preparation Score	UH Hilo			UH Hilo			UH Hilo			UH Hilo			UH Hilo			UH Hilo																																																																																																																																																																																					
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits	>=15 Credits																																																																																																																																																																											
	4.0	111	43	68 *	3.29	3.14	3.38	80%	73%	84% *	89%	85%	91% *	89%	83%	93% *	95%	91%	99% *	80%	72%	85% *	3.5 - 3.99	55	26	29	2.83	2.75	2.90	45%	35%	55%	69%	62%	76%	85%	85%	86%	95%	96%	93%	69%	77%	62%	3.0 - 3.49	112	55	57	2.72	2.65	2.78	47%	38%	56%	67%	68%	67%	80%	76%	84%	91%	89%	93%	62%	62%	61%	2.5 - 2.99	61	44	17 *	2.28	2.20	2.49	28%	27%	29% *	46%	48%	41% *	64%	59%	76% *	90%	89%	94% *	70%	66%	82%	2.0 - 2.49	76	50	26 *	2.39	2.29	2.59	28%	33%	19% *	53%	53%	54% *	66%	58%	81%	89%	86%	96% *	64%	56%	81%	1.5 - 1.99	21	13	8	1.94	2.00	1.85	10%	15%	0%	33%	31%	38%	62%	54%	75%	100%	100%	100%	71%	62%	88%	1.0 - 1.49	16	9	7	2.16	2.29	1.98	31%	44%	14%	31%	44%	14%	63%	67%	57%	75%	78%	71%	56%	56%	57%	NA	4	2	2	2.12	1.75	2.49	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	50%	100%	50%	50%	50%	All	456	242	214	2.69	2.53	2.88	47%	39%	55%	64%	60%	69%	77%	70%	85%	92%	89%	95%	69%	64%

Academic Preparation Score	UH-West O'ahu			UH-West O'ahu			UH-West O'ahu			UH-West O'ahu			UH-West O'ahu			UH-West O'ahu																																																																																																																																																																			
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits	>=15 Credits																																																																																																																																																									
	4.0	35	16	19	3.35	3.14	3.52	83%	75%	89%	97%	94%	100%	97%	94%	100%	94%	88%	100%	66%	56%	74%	3.5 - 3.99	31	17	14	3.43	3.31	3.57	90%	82%	100%	94%	88%	100%	97%	94%	100%	94%	94%	93%	68%	65%	71%	3.0 - 3.49	71	42	29	3.04	3.04	3.05	63%	61%	66%	81%	83%	79%	87%	83%	93%	89%	88%	90%	65%	60%	72%	2.5 - 2.99	35	22	13	2.50	2.51	2.48	26%	27%	23%	60%	55%	69%	89%	91%	85%	86%	86%	85%	74%	68%	85%	2.0 - 2.49	73	42	31	2.52	2.48	2.57	41%	43%	39%	64%	64%	65%	75%	69%	84%	86%	86%	87%	52%	50%	55%	1.5 - 1.99	26	17	9	2.45	2.38	2.57	32%	31%	33%	48%	38%	67%	65%	53%	89%	92%	88%	100%	62%	59%	67%	1.0 - 1.49	30	20	10	2.60	2.74	2.30	34%	45%	11% *	62%	65%	56%	69%	65%	78%	87%	85%	90%	37%	50%	10% *	NA	0	0	0	All	301	176	125	2.83	2.78	2.91	53%	51%	56%	73%	70%	77%	83%	78%	90%	89%	88%	91%	60%	57%

Column proportion test; \* Indicates significant at the 0.05 confidence level; t-test and z-score statistics.

Fall to Fall persistence information not yet available for Fall 2012 first-time freshmen.

Source: IRO Base, Census; IRO Regs, EOS.

UH Institutional Research and Analysis Office; May 2013; revised September 2013.

**APPENDIX 3B**  
**COMPARISON OF FIRST-TIME FRESHMEN AT THE FOUR-YEAR CAMPUSES**  
**BY ACADEMIC PREPARATION SCORE**  
**WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE**  
**FALL SEMESTERS 2009 TO 2011 AND FALL 2012**

Academic Preparation Score	Fall 2009 to Fall 2011 Group					Fall 2012 Group				
	Total Number	UH Four-Year		UH Four-Year		Total Number	UH Four-Year		UH Four-Year	
		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits
4.0	667	307	360	46%	54% *	892	355	537	40%	60% *
3.5 - 3.99	614	346	268	56%	44% *	384	169	215	44%	56%
3.0 - 3.49	1,406	872	534	62%	38%	583	296	287	51%	49%
2.5 - 2.99	1,009	618	391	61%	39%	291	168	123	58%	42% *
2.0 - 2.49	1,613	1,090	523	68%	32% *	317	176	141	56%	44% *
1.5 - 1.99	903	625	278	69%	31% *	67	38	29	57%	43%
1.0 - 1.49	932	648	284	70%	30% *	69	41	28	59%	41% *
NA	331	271	60	82%	18%	118	49	69	42%	58%
All	7,475	4,777	2,698	64%	36%	2,721	1,292	1,429	47%	53%

Academic Preparation Score	Fall 2009 to Fall 2011					Fall 2012				
	Total Number	UH Mānoa		UH Mānoa		Total Number	UH Mānoa		UH Mānoa	
		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits
4.0	502	219	283	44%	56% *	746	296	450	40%	60% *
3.5 - 3.99	489	263	226	54%	46% *	298	126	172	42%	58%
3.0 - 3.49	1,075	654	421	61%	39%	400	199	201	50%	50% *
2.5 - 2.99	763	470	293	62%	38%	195	102	93	52%	48% *
2.0 - 2.49	1,220	809	411	66%	34% *	168	84	84	50%	50%
1.5 - 1.99	708	479	229	68%	32% *	20	8	12	40%	60%
1.0 - 1.49	722	492	230	68%	32% *	23	12	11	52%	48%
NA	315	260	55	83%	17%	114	47	67	41%	59%
All	5,794	3,646	2,148	63%	37%	1,964	874	1,090	45%	55%

**APPENDIX 3B**  
**COMPARISON OF FIRST-TIME FRESHMEN AT THE FOUR-YEAR CAMPUSES**  
**BY ACADEMIC PREPARATION SCORE**  
**WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE**  
**FALL SEMESTERS 2009 TO 2011 AND FALL 2012**

Academic Preparation Score	Fall 2009 to Fall 2011					Fall 2012				
	Total Number	UH Hilo		UH Hilo		Total Number	UH Hilo		UH Hilo	
		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits
4.0	139	67	72	48%	52% *	111	43	68	39%	61% *
3.5 - 3.99	101	61	40	60%	40%	55	26	29	47%	53%
3.0 - 3.49	252	150	102	60%	40%	112	55	57	49%	51%
2.5 - 2.99	201	111	90	55%	45% *	61	44	17	72%	28% *
2.0 - 2.49	309	207	102	67%	33%	76	50	26	66%	34% *
1.5 - 1.99	161	116	45	72%	28% *	21	13	8	62%	38%
1.0 - 1.49	166	121	45	73%	27% *	16	9	7	56%	44%
NA	15	10	5	67%	33%	4	2	2	50%	50%
All	1,344	843	501	63%	37%	456	242	214	53%	47%

Academic Preparation Score	Fall 2009 to Fall 2011					Fall 2012				
	Total Number	UH-West O'ahu		UH-West O'ahu		Total Number	UH-West O'ahu		UH-West O'ahu	
		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits		# Taking <15 Credits	# Taking >=15 Credits	% Taking <15 Credits	% Taking >=15 Credits
4.0	26	21	5	81%	19%	35	16	19	46%	54%
3.5 - 3.99	24	22	2	92%	8%	31	17	14	55%	45%
3.0 - 3.49	79	68	11	86%	14%	71	42	29	59%	41%
2.5 - 2.99	45	37	8	82%	18%	35	22	13	63%	37%
2.0 - 2.49	84	74	10	88%	12%	73	42	31	58%	42%
1.5 - 1.99	34	30	4	88%	12%	26	17	9	65%	35%
1.0 - 1.49	44	35	9	80%	20%	30	20	10	67%	33%
NA	1	1		100%						
All	337	288	49	85%	15%	301	176	125	58%	42%

\* Indicates significant at the 0.05 confidence level; z-score statistics.

Source: IRO Base, Census.

UH Institutional Research and Analysis Office; March 2013; revised July 2013.

APPENDIX 3C  
 SELECTED PERFORMANCE MEASURES BY ACADEMIC PREPARATION SCORE  
 WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE  
 UNDER-REPRESENTED MINORITIES AND PELL RECIPIENTS  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTERS, 2009 TO 2011

Academic Preparation Score	URM			URM			URM			URM			URM			URM			URM							
	Total	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits				
	Number						Total			Total			Total			Total			Total			Total				
4.0	126	66	60 *	3.46	3.40	3.53	86%	83%	88% *	92%	93%	92% *	89%	86%	92% *	96%	95%	97% *	85%	86%	83% *					
3.5 - 3.99	163	101	62	3.27	3.16	3.45 *	79%	71%	90%	88%	92%	88%	89%	84%	97%	98%	96%	100%	83%	81%	87%					
3.0 - 3.49	445	286	159 *	3.05	2.96	3.20 *	64%	58%	75%	82%	84%	82%	80%	73%	91%	95%	93%	97% *	82%	80%	86%					
2.5 - 2.99	338	218	120	2.64	2.53	2.83 *	46%	41%	55%	66%	75%	66%	64%	57%	76%	91%	90%	93%	75%	72%	80%					
2.0 - 2.49	602	414	188	2.60	2.53	2.75 *	37%	33%	44%	63%	64%	63%	61%	53%	78%	94%	93%	96%	72%	69%	80%					
1.5 - 1.99	331	240	91	2.31	2.24	2.50 *	27%	24%	36%	50%	55%	50%	48%	41%	67%	90%	90%	91%	66%	64%	73%					
1.0 - 1.49	389	274	115	2.23	2.23	2.24	21%	23%	16% *	43%	48%	43% *	46%	42%	56%	90%	90%	91%	63%	61%	69%					
NA	198	171	27	2.70	2.69	2.78	43%	40%	59%	65%	79%	65%	56%	52%	78%	95%	95%	100%	77%	77%	78%					
All	2,592	1,770	822	2.68	2.60	2.86	44%	40%	54%	65%	73%	65%	63%	56%	78%	93%	92%	95%	74%	71%	80%					
Academic Preparation Score	Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients				
	Total	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits	>=15 Credits
	Number						Total			Total			Total			Total			Total			Total			Total	
4.0	158	74	84 *	3.35	3.14	3.53 *	80%	69%	89% *	90%	85%	95% *	82%	74%	89% *	96%	95%	96% *	82%	81%	83% *					
3.5 - 3.99	145	84	61 *	3.33	3.26	3.43	81%	77%	87%	90%	88%	93%	87%	86%	89%	96%	95%	97% *	86%	82%	90% *					
3.0 - 3.49	446	297	149	3.03	2.94	3.20 *	62%	58%	70%	81%	79%	86%	78%	72%	89%	95%	94%	97%	83%	81%	86%					
2.5 - 2.99	281	181	100	2.72	2.63	2.87 *	49%	43%	60%	69%	64%	79%	69%	64%	79%	91%	92%	90%	76%	74%	79%					
2.0 - 2.49	483	334	149	2.64	2.57	2.79 *	41%	38%	47%	64%	61%	71%	60%	53%	76%	94%	93%	96%	73%	72%	78%					
1.5 - 1.99	274	191	83	2.40	2.31	2.58 *	28%	26%	34%	52%	49%	60%	53%	45%	72%	92%	90%	95%	68%	63%	78%					
1.0 - 1.49	263	194	69 *	2.23	2.19	2.32	18%	18%	18% *	42%	40%	47%	45%	39%	61%	91%	90%	94% *	63%	62%	65% *					
NA	170	143	27	2.70	2.66	2.87	42%	39%	56%	65%	63%	78%	57%	52%	81%	98%	98%	100%	79%	79%	78%					
All	2,220	1,498	722	2.75	2.65	2.96	47%	42%	58%	68%	63%	77%	65%	58%	80%	94%	93%	95%	75%	73%	80%					

Column proportion test; \* Indicates significant at the 0.05 confidence level; t-test and z-score statistics.  
 Source: IRO Base, Census; IRO Regs, EOS.  
 UH Institutional Research and Analysis Office; July 2013.

APPENDIX 3D  
 SELECTED PERFORMANCE MEASURES BY ACADEMIC PREPARATION SCORE  
 WITH BREAKOUT BY 15 CREDITS ATTEMPTED SYSTEMWIDE  
 UNDER-REPRESENTED MINORITIES AND PELL RECIPIENTS  
 FIRST-TIME FRESHMEN AT THE UH FOUR-YEAR CAMPUSES  
 FALL SEMESTER 2012 ONLY

Academic Preparation Score	URM			URM			URM			URM			URM			URM			URM						
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits
4.0	235	92	143 *	3.23	3.04	3.35 *	71%	59%	78% *	88%	81%	92% *	90%	86%	92% *	98%	96%	99% *	86%	76%	92% *				
3.5 - 3.99	131	55	76	2.98	2.92	3.02	60%	60%	61%	76%	75%	76%	85%	80%	89%	94%	93%	95%	77%	78%	76%				
3.0 - 3.49	238	121	117	2.70	2.64	2.76	44%	40%	48%	67%	63%	70%	82%	78%	87%	94%	96%	92%	69%	64%	74%				
2.5 - 2.99	117	67	50 *	2.44	2.32	2.61	33%	30%	38%	56%	55%	58% *	76%	73%	80% *	91%	91%	92%	71%	66%	78%				
2.0 - 2.49	130	73	57	2.56	2.43	2.72	36%	38%	33% *	64%	59%	70%	75%	64%	89%	88%	86%	91%	62%	58%	68%				
1.5 - 1.99	38	26	12 *	2.17	2.10	2.32	16%	20%	8% *	38%	32%	50%	61%	50%	83%	95%	92%	100% *	66%	58%	83%				
1.0 - 1.49	39	27	12 *	2.49	2.56	2.32	36%	41%	25% *	56%	59%	50% *	64%	63%	67% *	92%	89%	100% *	67%	70%	58% *				
NA	59	20	39	2.57	2.44	2.63	42%	30%	49%	63%	50%	69%	69%	55%	77%	95%	95%	95%	76%	80%	74%				
All	987	481	506	2.78	2.63	2.91	49%	43%	54%	70%	64%	75%	81%	74%	87%	94%	93%	95%	74%	68%	79%				

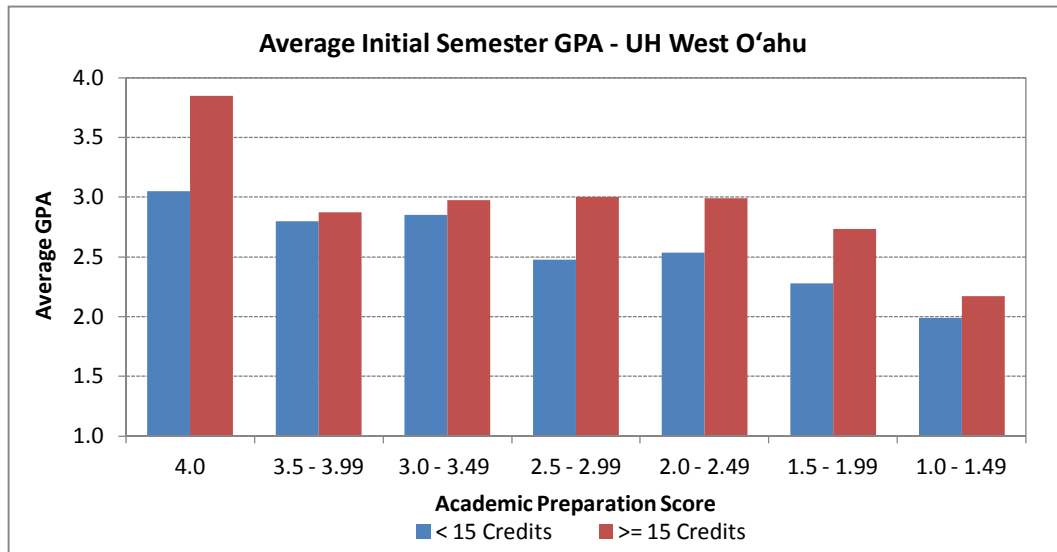
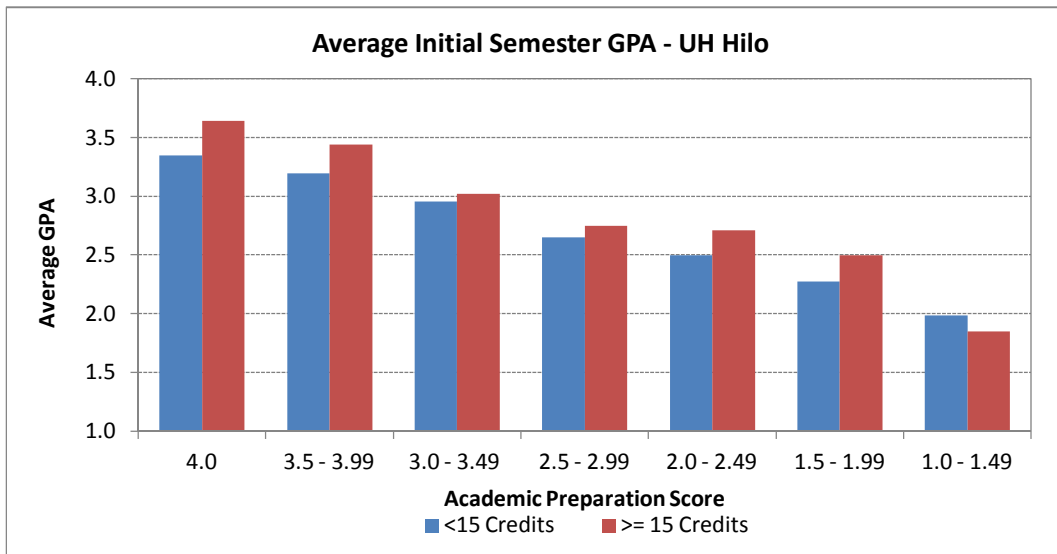
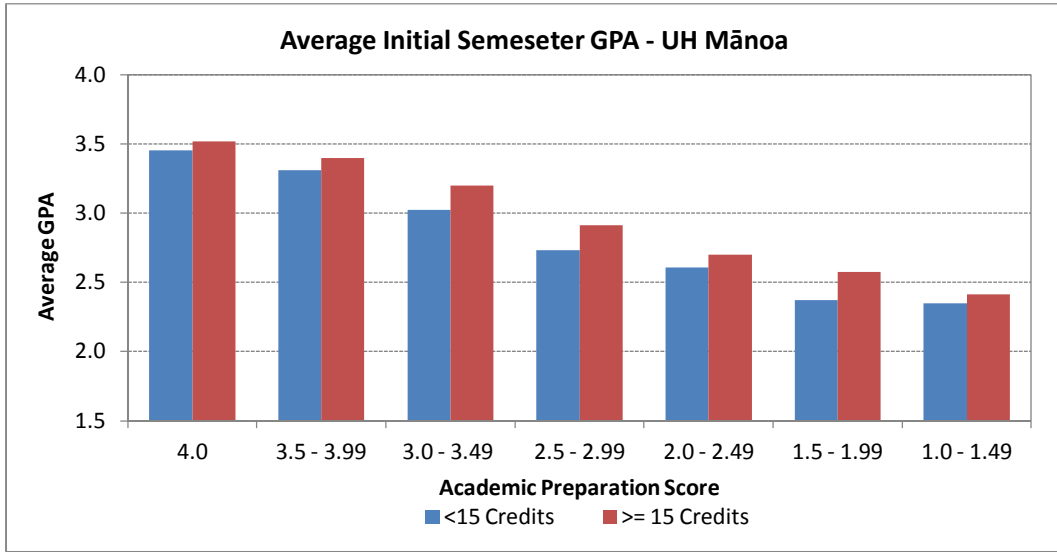
Academic Preparation Score	Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients			Pell Recipients						
	Total Number	# Taking <15 Credits	# Taking >=15 Credits	Avg GPA	Initial Semester <15 Credits	Initial Semester >=15 Credits	GPA Initial Sem >="B"	Total	<15 Credits	>=15 Credits	GPA Initial Sem >="C+"	Total	<15 Credits	>=15 Credits	Credit Completion Ratio >80%	Total	<15 Credits	>=15 Credits	Persistence to Next Spring	Total	<15 Credits	>=15 Credits	Persistence to Next Fall	Total	<15 Credits
4.0	51	17	34 *	3.35	3.23	3.43 *	80%	72%	86%	93%	89%	95%	93%	89%	95%	97%	96%	99% *	86%	80%	91% *				
3.5 - 3.99	235	96	139	2.93	2.74	3.07 *	59%	43%	70%	78%	66%	87%	87%	77%	94%	95%	92%	97%	74%	74%	74%				
3.0 - 3.49	123	53	70	2.75	2.62	2.86	49%	43%	55%	72%	68%	75%	78%	69%	85%	93%	92%	94%	66%	59%	72%				
2.5 - 2.99	166	78	88 *	2.48	2.43	2.57	31%	27%	37%	53%	52%	54% *	75%	69%	86% *	92%	92%	91% *	68%	66%	71% *				
2.0 - 2.49	97	62	35	2.47	2.43	2.52	28%	33%	23% *	58%	56%	59%	68%	56%	84%	89%	89%	89% *	63%	60%	68%				
1.5 - 1.99	101	57	44 *	2.29	2.17	2.55	25%	25%	25%	42%	38%	50%	68%	53%	100%	96%	94%	100% *	76%	71%	88%				
1.0 - 1.49	25	17	8	2.33	2.44	2.20	24%	43%	0%	52%	50%	55%	60%	50%	73%	80%	79%	82%	40%	43%	36%				
NA	25	14	11	2.61	2.46	2.68	43%	35%	47%	65%	47%	74%	75%	59%	82%	94%	82%	100%	80%	76%	82%				
All	823	394	429	2.85	2.70	2.98	53%	45%	60%	73%	66%	79%	81%	72%	90%	94%	92%	96%	73%	68%	78%				

Column proportion test; \* Indicates significant at the 0.05 confidence level; t-test and z-score statistics.

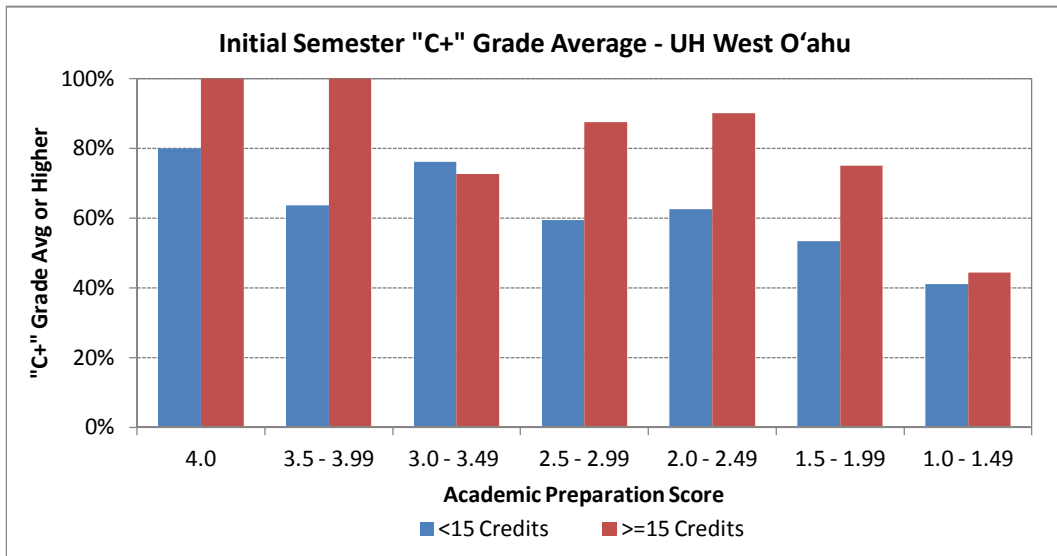
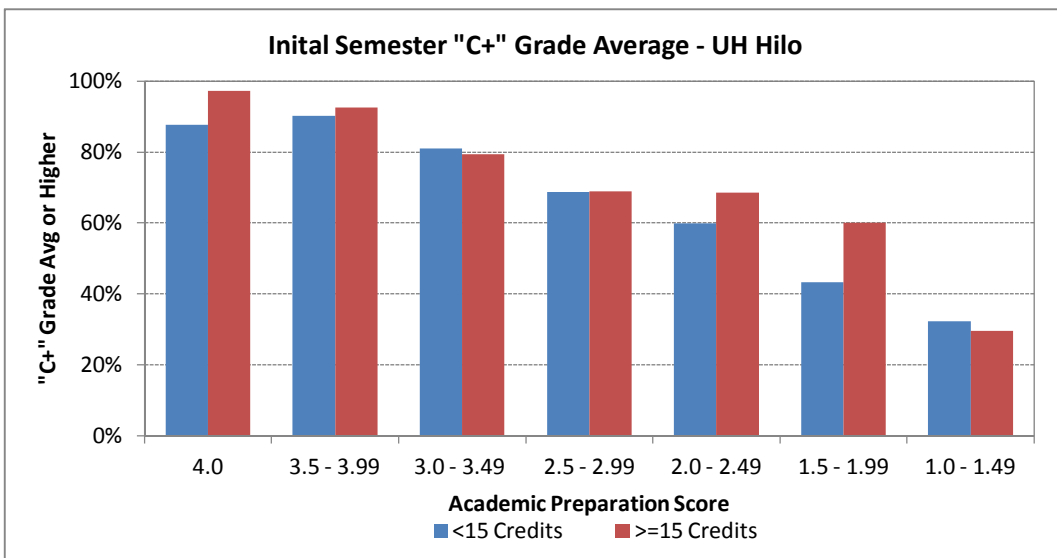
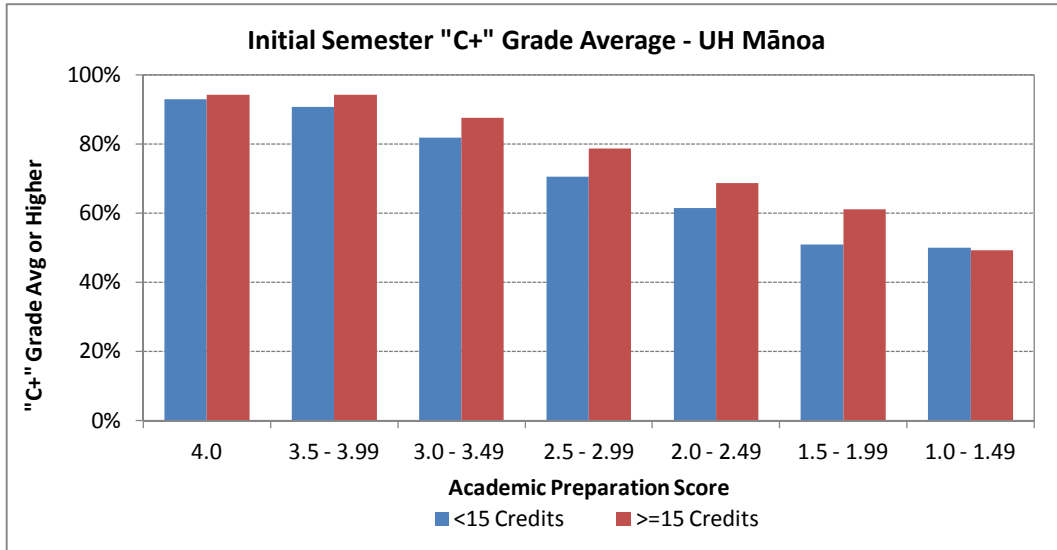
Source: IRO Base, Census; IRO Regs, EOS.

UH Institutional Research and Analysis Office; July 2013; revised September 2013.

APPENDIX 4  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2009 TO FALL 2011

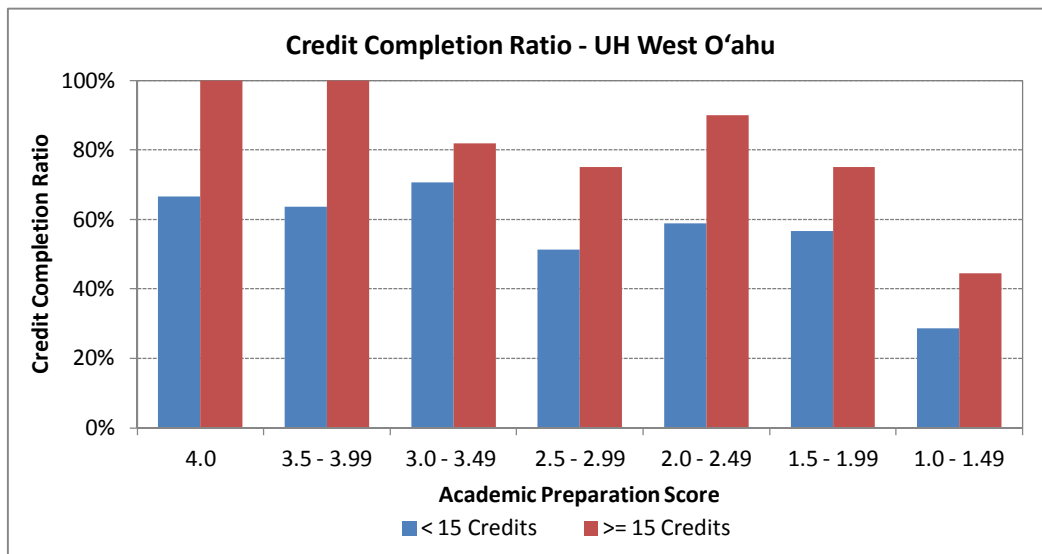
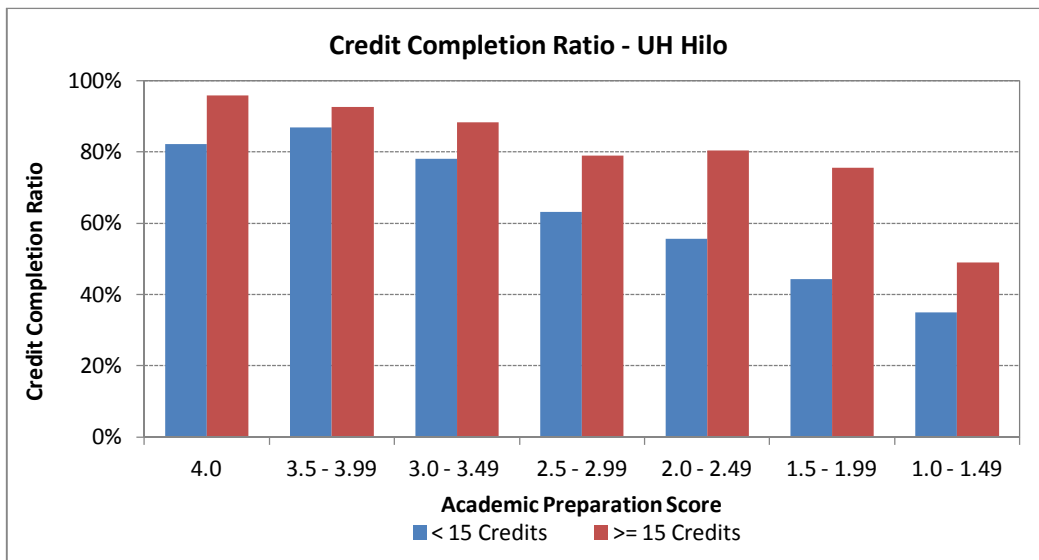
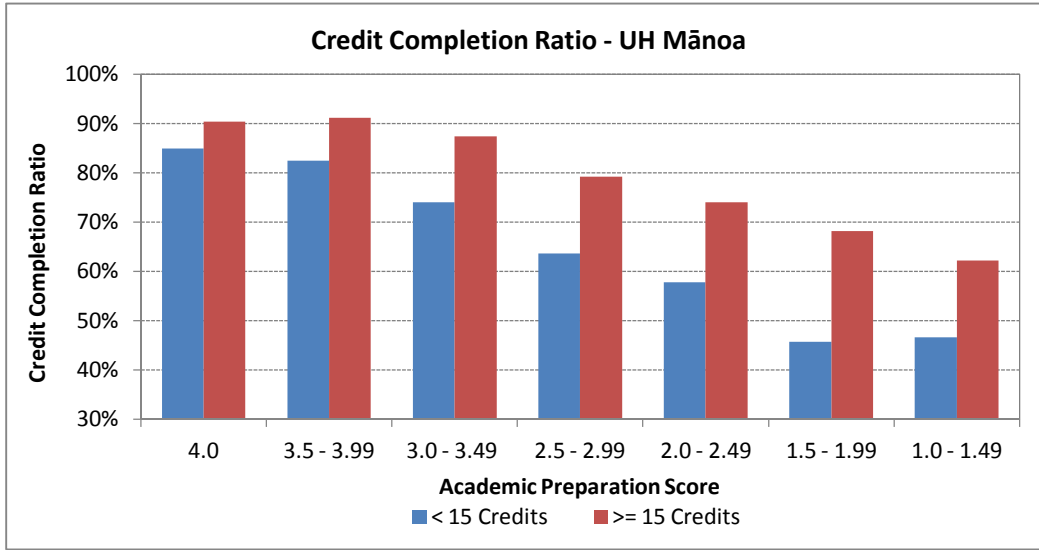


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 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2009 TO FALL 2011

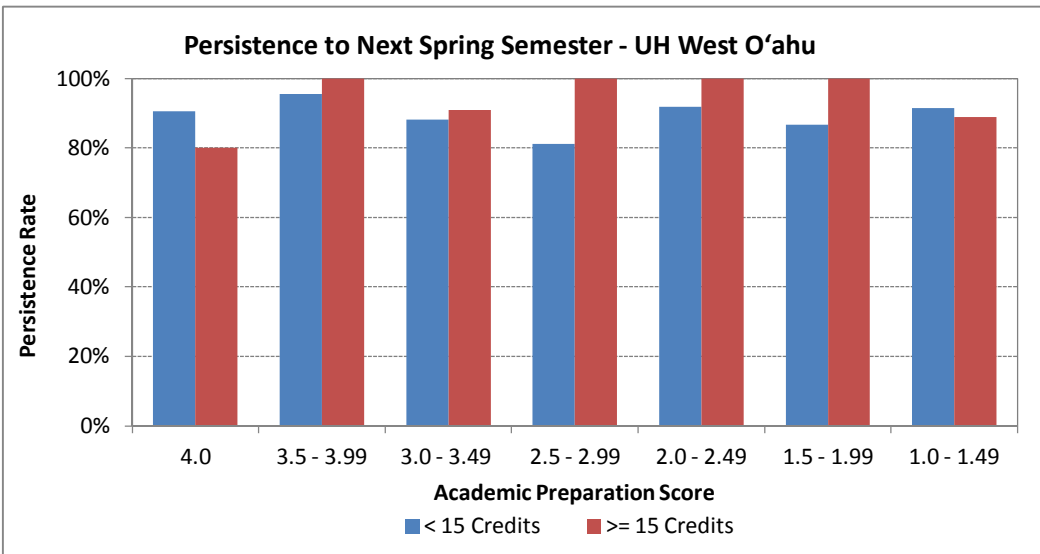
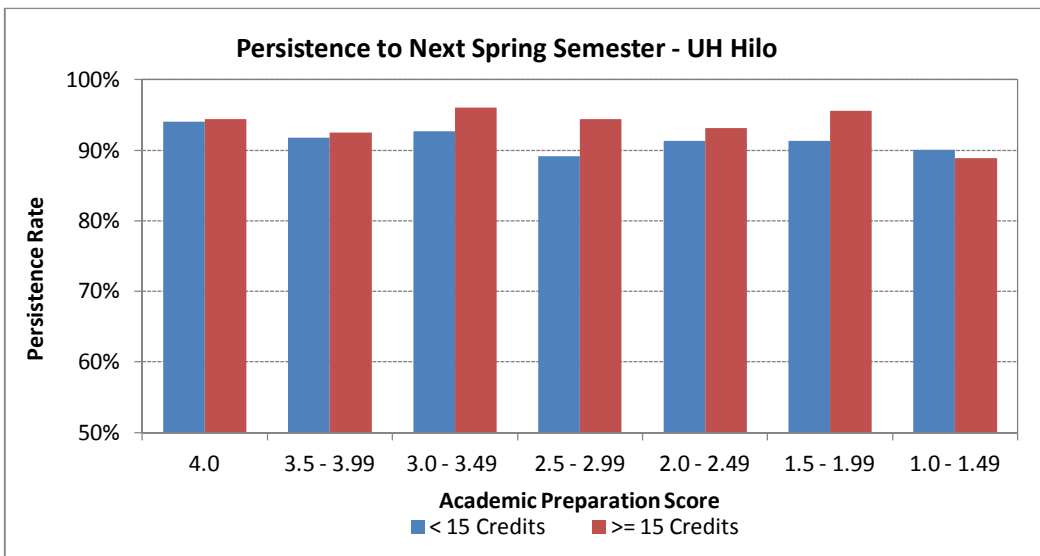
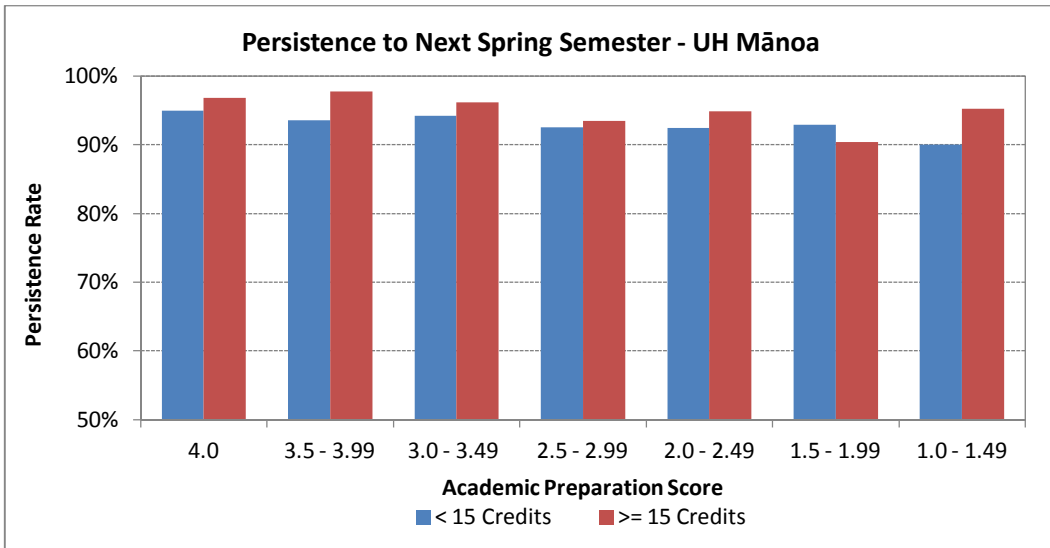




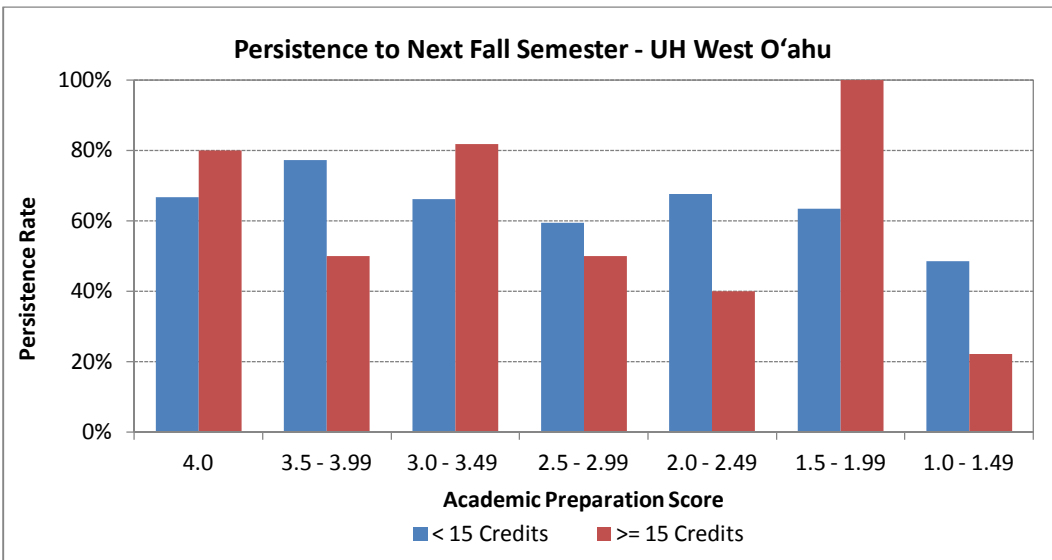
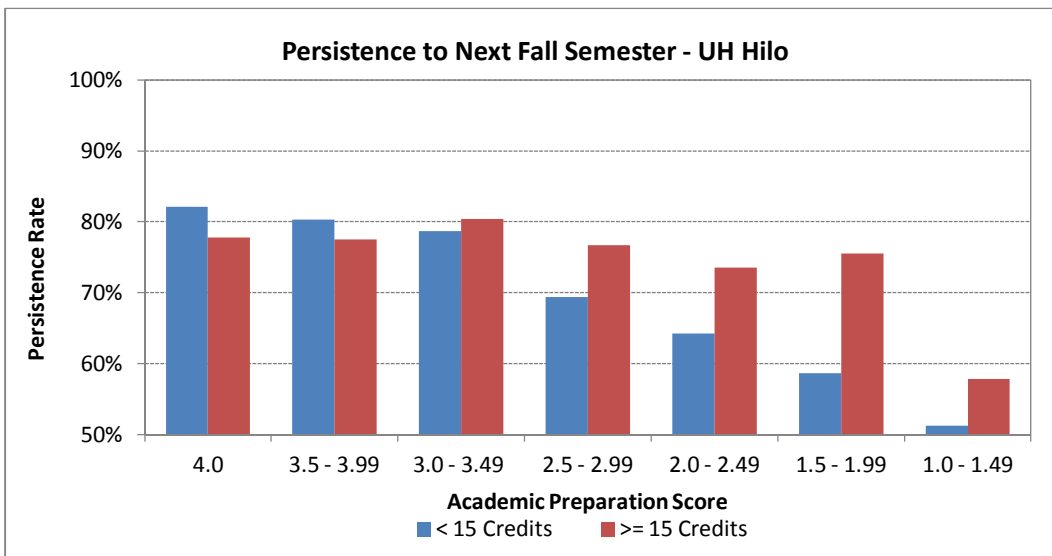
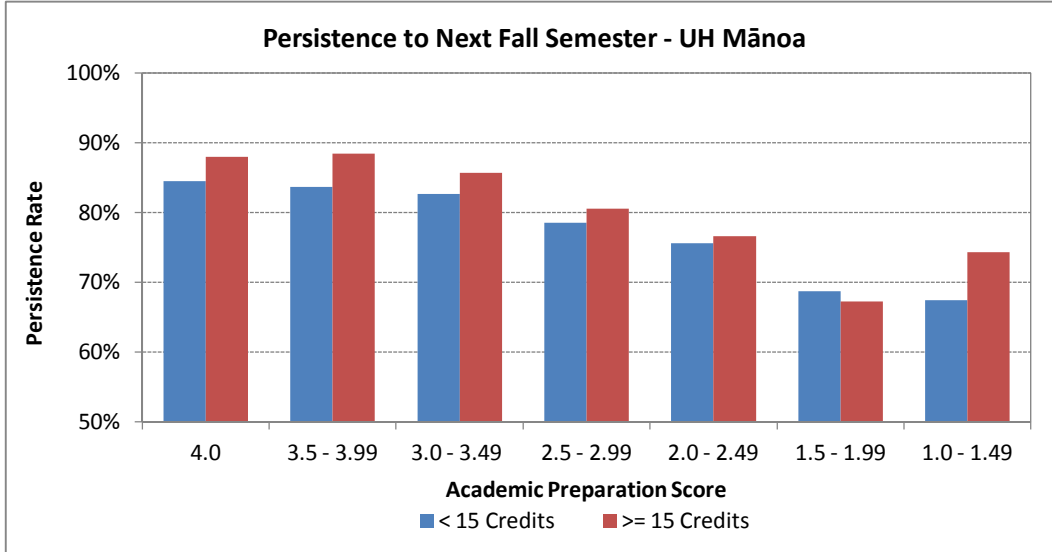
APPENDIX 4  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2009 TO FALL 2011



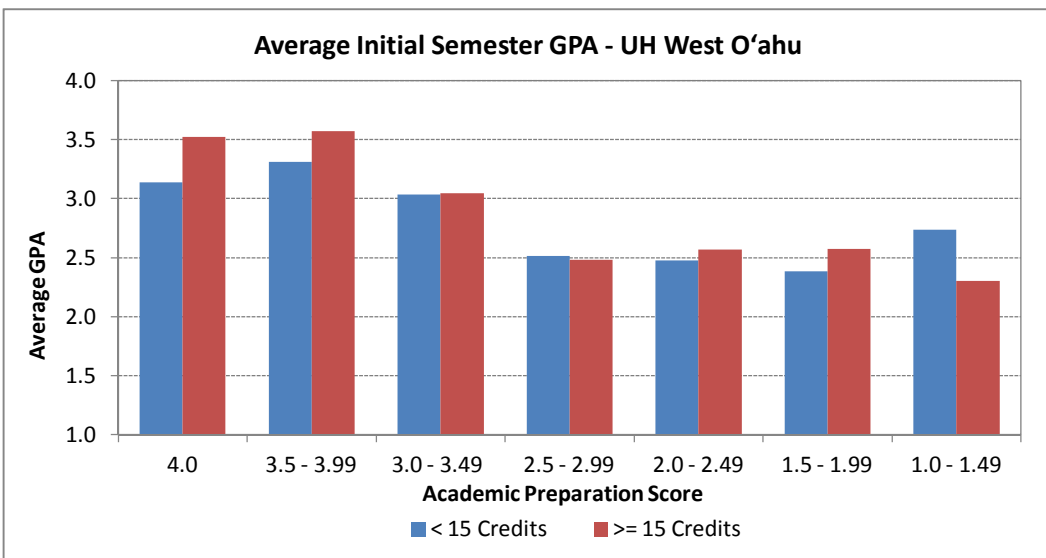
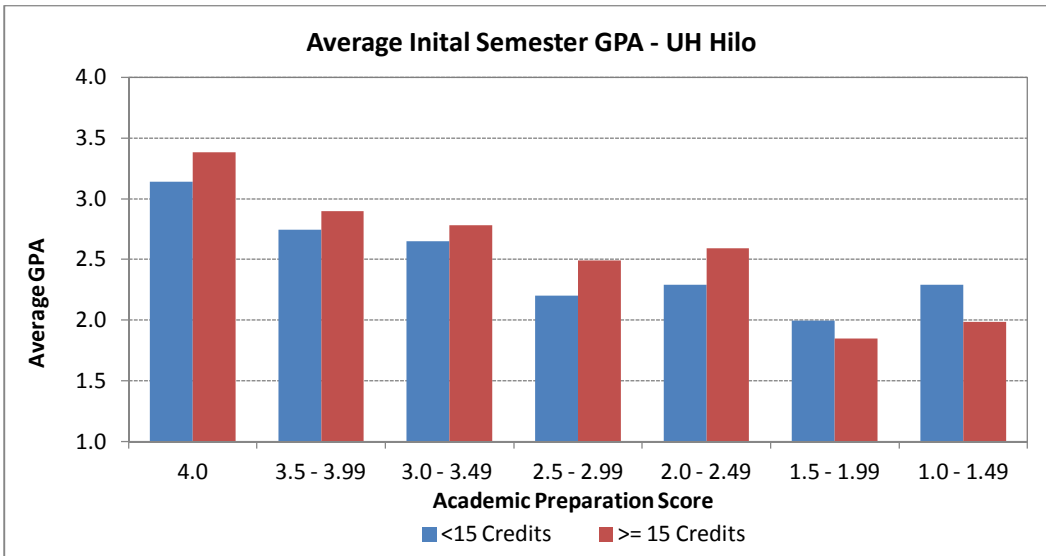
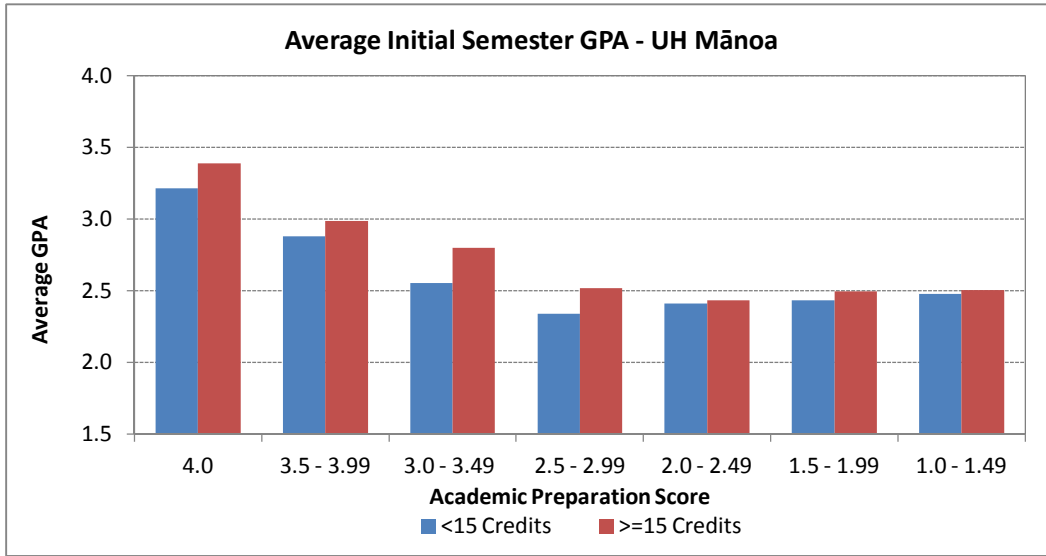
APPENDIX 4  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2009 TO FALL 2011



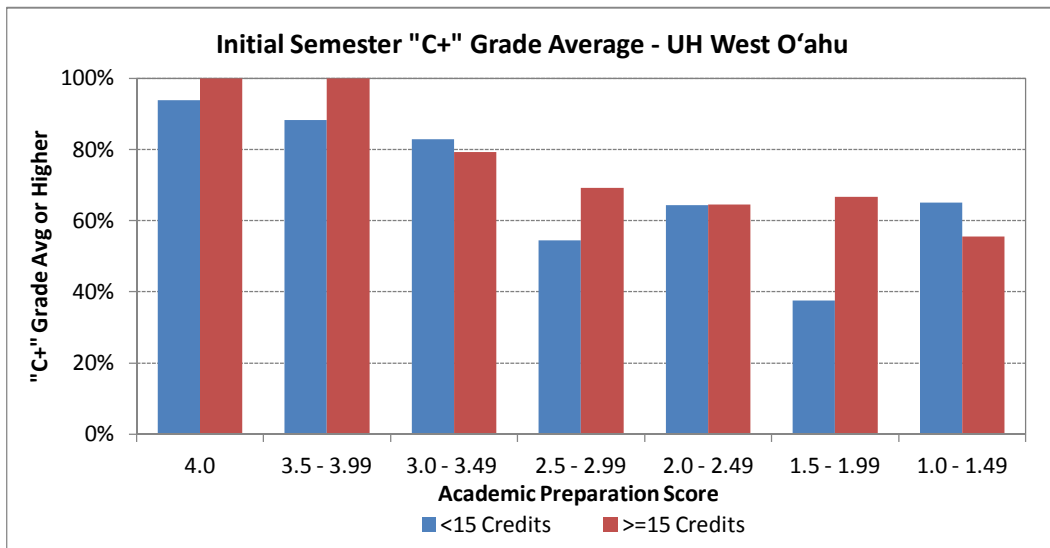
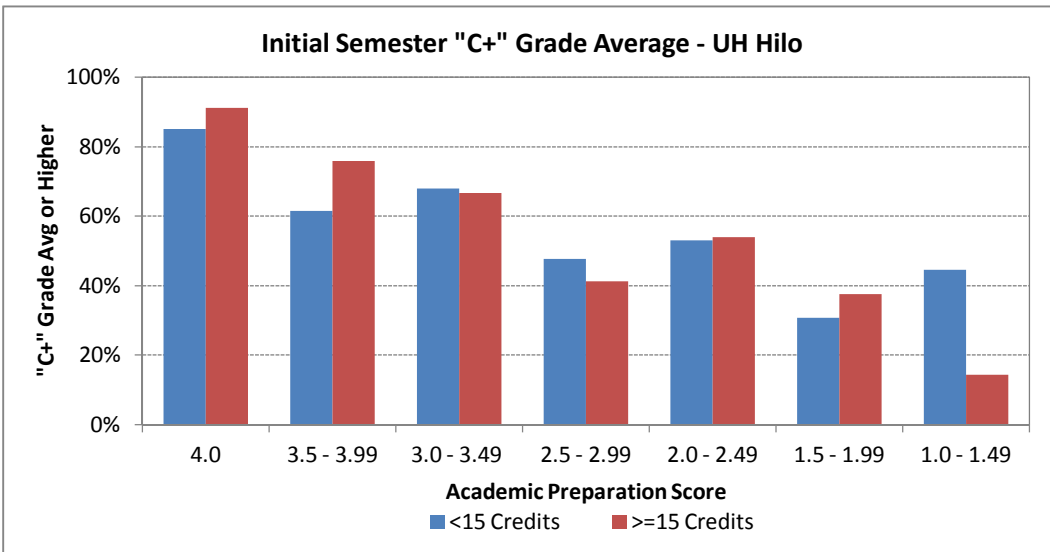
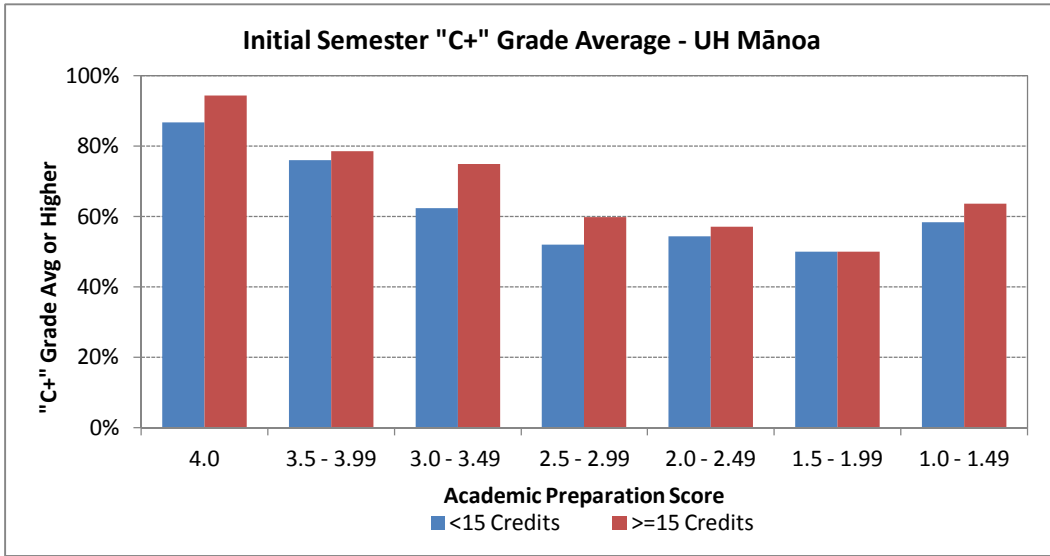
APPENDIX 4  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2009 TO FALL 2011



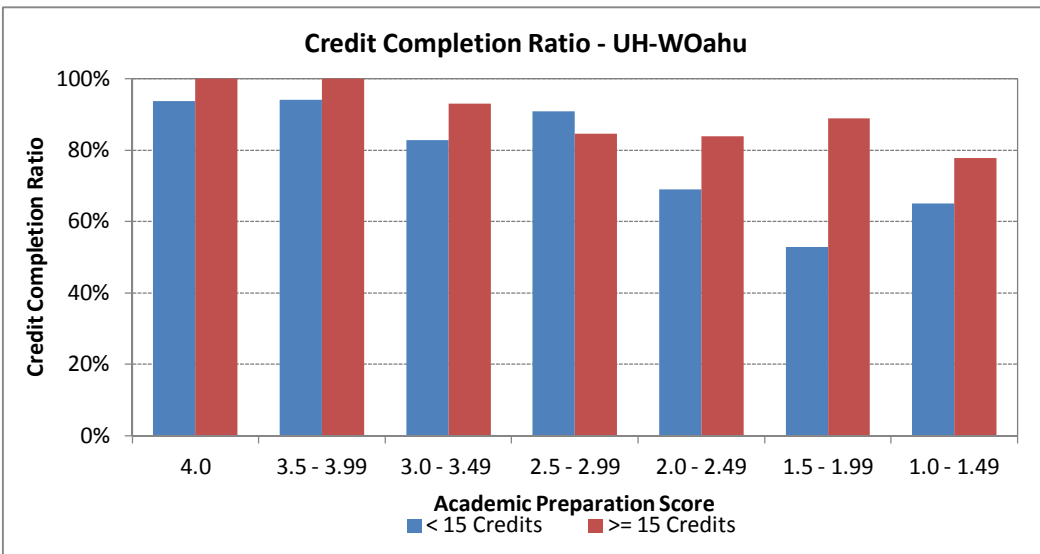
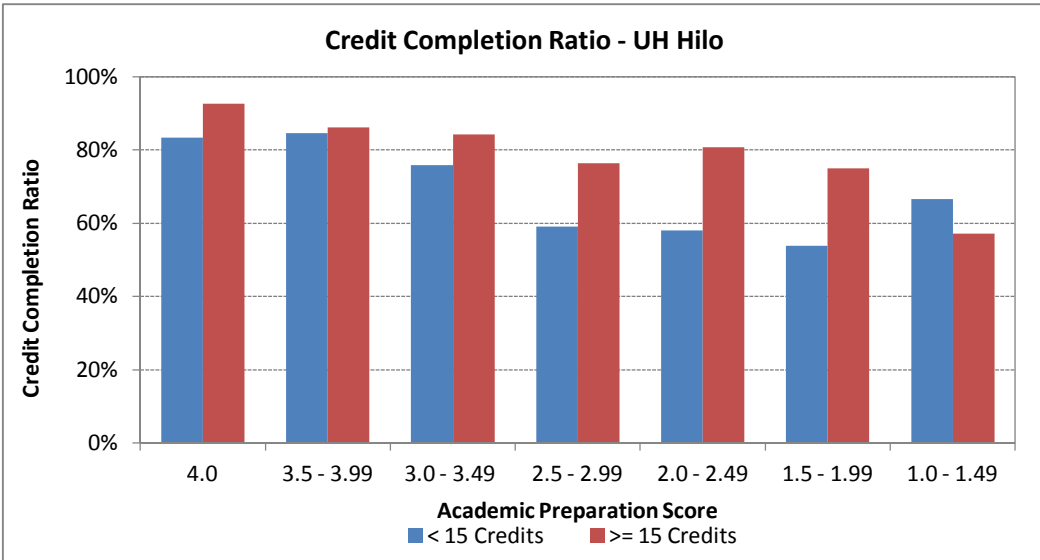
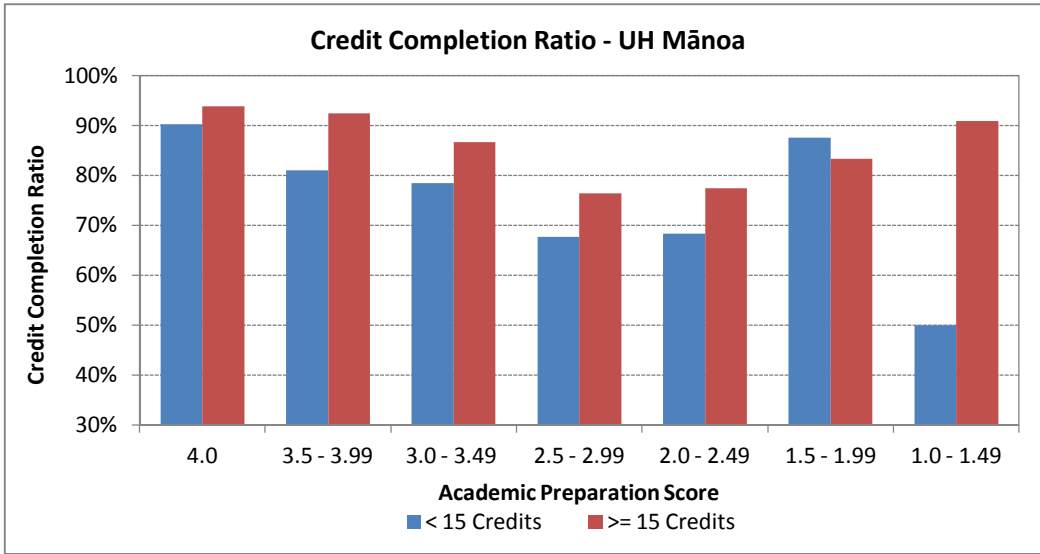
APPENDIX 4A  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2012



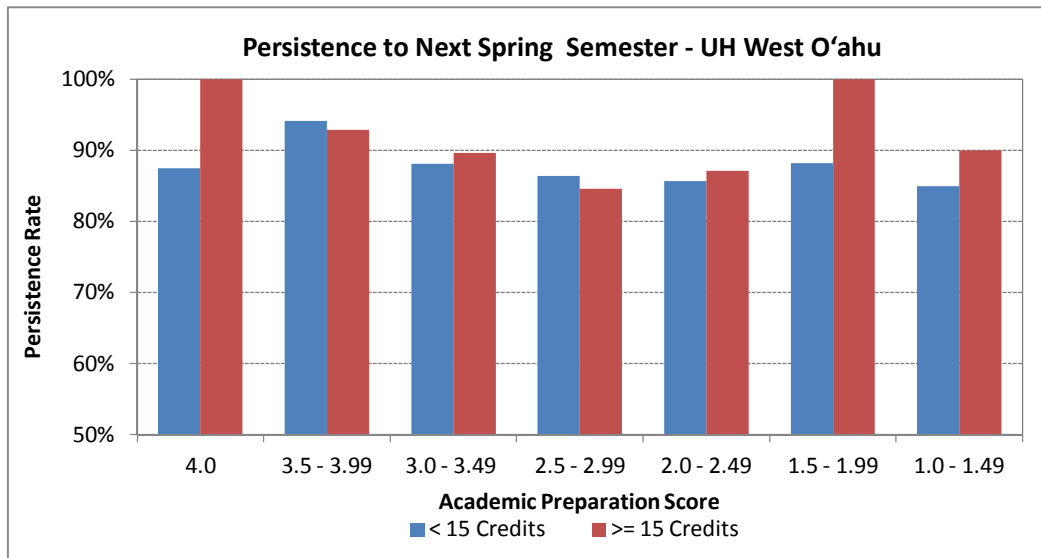
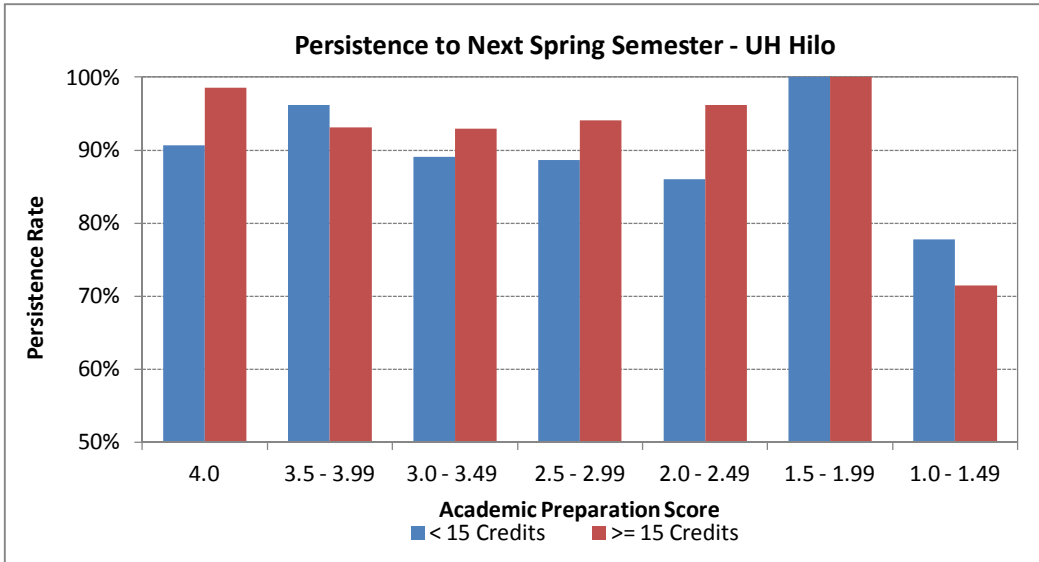
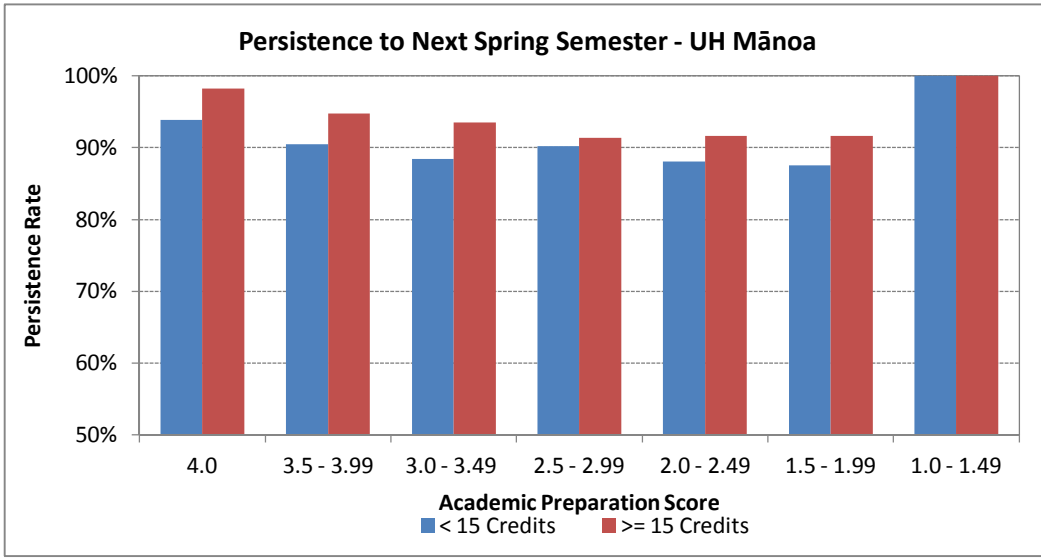
APPENDIX 4A  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2012



APPENDIX 4A  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2012



APPENDIX 4A  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2012



APPENDIX 4A  
 SUCCESS MEASURES BY ACADEMIC PREPARATION SCORE  
 UH FOUR-YEAR CAMPUSES, FALL 2012

